

EXHIBIT 3

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
----- X
NATIONAL ASSOCIATION FOR
THE ADVANCEMENT OF
COLORED PEOPLE,
SPRING VALLEY BRANCH, et al.,
Plaintiffs,

vs. No.

7:17-cv-08943

EAST RAMAPO CENTRAL
SCHOOL DISTRICT, et al.,
Defendants.

----- X

February 6, 2018
10:07 a.m.

Deposition of STEVEN P.
COLE, Ph.D., held at the offices of
Morgan, Lewis & Bockius LLP, 101 Park
Avenue, New York, New York, pursuant to
Notice, before Theresa Tramondo, AOS, CLR,
a Notary Public of the State of New York.

Reported by:
THERESA TRAMONDO, AOS, CLR
JOB NO. PA2808166

1 2 APPEARANCE OF COUNSEL: 3 4 FOR PLAINTIFFS and 5 STEVEN P. COLE, Ph.D. 6 LATHAM & WATKINS LLP 7 885 Third Avenue 8 New York, New York 10022-4834 9 BY: COREY A. CALABRESE, ESQ. 10 Corey.calabrese@lw.com 11 212-9061200 12 13 FOR PLAINTIFFS and 14 STEVEN P. COLE, Ph.D.: 15 NEW YORK CIVIL LIBERTIES UNION 16 125 Broad Street 17 New York, New York 10004 18 BY: PERRY GROSSMAN, ESQ. 19 Pgrossman@nyclu.org 20 212-607-3347 21 22 23 24 Veritext Legal Solutions Mid-Atlantic Region 1250 Eye Street NW - Suite 350 25 Washington, D.C. 20005	Page 2 1 2 APPEARANCE OF COUNSEL: 3 4 FOR PLAINTIFFS and 5 STEVEN P. COLE, Ph.D. 6 LATHAM & WATKINS LLP 7 885 Third Avenue 8 New York, New York 10022-4834 9 BY: COREY A. CALABRESE, ESQ. 10 Corey.calabrese@lw.com 11 212-9061200 12 13 FOR PLAINTIFFS and 14 STEVEN P. COLE, Ph.D.: 15 NEW YORK CIVIL LIBERTIES UNION 16 125 Broad Street 17 New York, New York 10004 18 BY: PERRY GROSSMAN, ESQ. 19 Pgrossman@nyclu.org 20 212-607-3347 21 22 23 24 Veritext Legal Solutions Mid-Atlantic Region 1250 Eye Street NW - Suite 350 25 Washington, D.C. 20005	Page 4 1 2 STIPULATIONS 3 4 5 IT IS HEREBY STIPULATED AND AGREED, 6 by and among counsel for the respective 7 parties hereto, that the filing, 8 sealing and certification of the within 9 deposition shall be and the same are 10 hereby waived; 11 IT IS FURTHER STIPULATED AND AGREED 12 that all objections, except as to form 13 of the question, shall be reserved to 14 the time of the trial; 15 IT IS FURTHER STIPULATED AND AGREED 16 that the within deposition may be signed 17 before any Notary Public with the same 18 force and effect as if signed and sworn to 19 before the Court. 20 21 22 23 24 25
1 2 APPEARANCE OF COUNSEL (CONT'D): 3 4 FOR DEFENDANT EAST RAMAPO CENTRAL SCHOOL 5 DISTRICT: 6 MORGAN, LEWIS & BOCKIUS LLP 7 1111 Pennsylvania Avenue, NW 8 Washington, D.C. 20004-2541 9 BY: RANDALL M. LEVINE, ESQ. 10 DAVID J. BUTLER, ESQ. 11 ADAM ADLER, ESQ. 12 Randall.levine@morganlewis.com 13 David.butler@morganlewis.com 14 Adam.adler@morganlewis.com 15 202-373-6541 16 17 FOR DEFENDANT COMMISSIONER MARYELLEN ELIA: 18 STATE OF NEW YORK OFFICE OF THE 19 ATTORNEY GENERAL ERIC T. SCHNEIDERMAN 20 120 Broadway 21 New York, New York 10271-0332 22 BY: MONICA A. CONNELL, ESQ. 23 Monica.connell@ag.ny.gov 24 212-416-8965 25	Page 3 1 2 APPEARANCE OF COUNSEL (CONT'D): 3 4 FOR DEFENDANT EAST RAMAPO CENTRAL SCHOOL 5 DISTRICT: 6 MORGAN, LEWIS & BOCKIUS LLP 7 1111 Pennsylvania Avenue, NW 8 Washington, D.C. 20004-2541 9 BY: RANDALL M. LEVINE, ESQ. 10 DAVID J. BUTLER, ESQ. 11 ADAM ADLER, ESQ. 12 Randall.levine@morganlewis.com 13 David.butler@morganlewis.com 14 Adam.adler@morganlewis.com 15 202-373-6541 16 17 FOR DEFENDANT COMMISSIONER MARYELLEN ELIA: 18 STATE OF NEW YORK OFFICE OF THE 19 ATTORNEY GENERAL ERIC T. SCHNEIDERMAN 20 120 Broadway 21 New York, New York 10271-0332 22 BY: MONICA A. CONNELL, ESQ. 23 Monica.connell@ag.ny.gov 24 212-416-8965 25	Page 5 1 2 BY THE COURT REPORTER: 3 Q. Please state your full name for 4 the record. 5 A. Steven Parker Cole, Ph.D. 6 Q. What is your address? 7 A. Business address, 1315 Baptist 8 Church Road, Yorktown Heights, New York 9 10598 and 721 E. Ponce de Leon Avenue, 10 Decatur, Georgia 30030. 11 S T E V E N P C O L E, P h D, 12 called as a witness, having been duly 13 sworn by a Notary Public, was examined and 14 testified as follows: 15 EXAMINATION BY 16 MR. LEVINE: 17 Q. Good morning. We are on the 18 record. My name is Randall Levine. I am an 19 attorney. I represent the defendant in this 20 case, East Ramapo Central School District. 21 Would you please state your full 22 name for the record. 23 A. Steven Parker Cole. 24 Q. Dr. Cole, is that the right form 25 of address?

<p>1 Cole</p> <p>2 A. It is.</p> <p>3 Q. Dr. Cole, you have been deposed</p> <p>4 before, right?</p> <p>5 A. I have.</p> <p>6 Q. Well, then we will just refresh</p> <p>7 on the ground rules.</p> <p>8 If you have any questions,</p> <p>9 please ask. Today your answers will be</p> <p>10 given under oath, subject to penalties of</p> <p>11 perjury as if you were testifying in a</p> <p>12 courtroom. Do you understand that?</p> <p>13 A. I do.</p> <p>14 Q. If you don't understand any of</p> <p>15 my questions today, either in whole or in</p> <p>16 part, please just tell me, and I will</p> <p>17 rephrase the question. If you don't ask me</p> <p>18 to rephrase the question, then I will assume</p> <p>19 you understood the question. Do you</p> <p>20 understand?</p> <p>21 A. I do.</p> <p>22 Q. There may be times today when in</p> <p>23 the middle of a question counsel for one of</p> <p>24 the parties may object. That is not an</p> <p>25 instruction to you not to answer the</p>	Page 6	<p>1 Cole</p> <p>2 deposition today you need to take a break,</p> <p>3 that is perfectly fine. I would just ask</p> <p>4 that you wait until I finish a question and</p> <p>5 provide an answer to a question and then we</p> <p>6 can take a break. Do you understand?</p> <p>7 A. I do.</p> <p>8 Q. Did you drink any alcohol prior</p> <p>9 to coming here this morning?</p> <p>10 A. No.</p> <p>11 Q. Did you take any medications</p> <p>12 prior to coming here this morning?</p> <p>13 A. Just throat lozenges.</p> <p>14 Q. Are you currently being treated</p> <p>15 for any illness that would prevent you from</p> <p>16 answering questions fully and truthfully</p> <p>17 today?</p> <p>18 A. No.</p> <p>19 Q. Is there any other reason you</p> <p>20 can think of why you might not be able to</p> <p>21 give accurate and truthful answers to my</p> <p>22 questions?</p> <p>23 A. I don't.</p> <p>24 Q. Very good.</p> <p>25 Before we move on to the next</p>	Page 8
<p>1 Cole</p> <p>2 question. Do you understand?</p> <p>3 A. I do.</p> <p>4 Q. Are you represented by counsel</p> <p>5 today?</p> <p>6 A. I have counsel here who</p> <p>7 represent the school district. I -- I</p> <p>8 actually don't understand the question.</p> <p>9 Q. Let's clarify it. You have been</p> <p>10 retained to serve as an expert in this case,</p> <p>11 correct?</p> <p>12 A. Correct.</p> <p>13 Q. You have been retained by a law</p> <p>14 firm to provide an opinion in this case,</p> <p>15 correct?</p> <p>16 A. Correct.</p> <p>17 Q. Who retained you?</p> <p>18 A. I was retained by Latham &</p> <p>19 Watkins and New York Civil Liberties Union.</p> <p>20 Q. Are the attorneys from the NYCLU</p> <p>21 here today with you to serve in the capacity</p> <p>22 as counsel for the plaintiffs?</p> <p>23 A. Correct.</p> <p>24 Q. Very good.</p> <p>25 If at any point during the</p>	Page 7	<p>1 Cole</p> <p>2 piece, do you have any questions for me</p> <p>3 about the deposition?</p> <p>4 A. I don't.</p> <p>5 MR. LEVINE: I'm going to mark a</p> <p>6 document as Cole Exhibit 1.</p> <p>7 (Cole Exhibit 1, Curriculum</p> <p>8 vitae of Steven P. Cole, Ph.D., dated</p> <p>9 December 2017, marked for</p> <p>10 identification, as of this date.)</p> <p>11 Q. I note it's marked on the first</p> <p>12 page "Exhibit 2." That's not the deposition</p> <p>13 exhibit number.</p> <p>14 Take a moment to look at the</p> <p>15 document and familiarize yourself with it.</p> <p>16 The document marked as Cole</p> <p>17 Exhibit 1, do you recognize that document?</p> <p>18 A. It has Cole Exhibit 2 on the</p> <p>19 tab.</p> <p>20 Q. Do you recognize the document</p> <p>21 that we've marked as Cole Exhibit 1?</p> <p>22 A. I do.</p> <p>23 Q. Is this your CV?</p> <p>24 A. It is.</p> <p>25 Q. To the best of your knowledge,</p>	Page 9

<p>1 Cole</p> <p>2 is this CV fully up to date?</p> <p>3 A. It's dated December 2017. I</p> <p>4 would like to update it. There is a change</p> <p>5 since December.</p> <p>6 Q. All right. There is something</p> <p>7 you would like to add to your CV; is that</p> <p>8 correct?</p> <p>9 A. Not to add to it. Just change a</p> <p>10 date.</p> <p>11 Q. There is at least one change you</p> <p>12 would like to make to the CV?</p> <p>13 A. It's the only one I'm aware of,</p> <p>14 yes.</p> <p>15 Q. What's the change?</p> <p>16 A. On page 26 under "Publications</p> <p>17 and Papers," this article on depression was</p> <p>18 accepted by the Journal of Affective</p> <p>19 Disorders. It went into press in December.</p> <p>20 It's now available online. It has been</p> <p>21 published, and it will be out on paper in a</p> <p>22 few months.</p> <p>23 Q. Any other changes to this CV</p> <p>24 that you are aware of as you sit here today?</p> <p>25 A. Not that I'm aware of.</p>	<p>Page 10</p>	<p>1 Cole</p> <p>2 actually participate in taking samples, so</p> <p>3 data collection, I do data analysis, report</p> <p>4 writing, and communication with coauthors.</p> <p>5 Q. Are you an expert in alpaca</p> <p>6 manure?</p> <p>7 A. I actually am.</p> <p>8 Q. Is that a veterinary expertise?</p> <p>9 A. No. I actually live on a farm</p> <p>10 and have alpacas, so I'm very experienced</p> <p>11 with manure, and have been concerned about</p> <p>12 alpaca and llama farmers using composted</p> <p>13 manure for gardens and farms knowing that</p> <p>14 the animals are medicated.</p> <p>15 So the purpose of the study is</p> <p>16 to document how long it takes for the drug</p> <p>17 to leave the animal and then once it's</p> <p>18 composted to study how long or to study the</p> <p>19 degradation rates of the drug in the</p> <p>20 composted manure.</p> <p>21 Q. That project you're working on</p> <p>22 is continuing through to the present,</p> <p>23 correct?</p> <p>24 A. Correct.</p> <p>25 Q. Let's move down to the next</p>
<p>1 Cole</p> <p>2 Q. Turning to the very first page</p> <p>3 of the document, which is labeled at the top</p> <p>4 "Page 2 of 38," under "Experience" you have</p> <p>5 listed as the first entry, "2016 to Present,</p> <p>6 a role as primary investigator, Northeast</p> <p>7 Sustainable Agriculture Research and</p> <p>8 Education Grant, University of Vermont,</p> <p>9 Residual Doramectin in alpaca manure</p> <p>10 compost."</p> <p>11 What is that role that you're</p> <p>12 serving in in that entry?</p> <p>13 A. I'm the primary investigator.</p> <p>14 Q. What is residual Doramectin in</p> <p>15 alpaca manure?</p> <p>16 A. Alpacas east of the Mississippi</p> <p>17 River are prone to a parasite, a meningeal</p> <p>18 worm, a brain worm, and in order to prevent</p> <p>19 severe neurological issues, they're injected</p> <p>20 monthly with a medication Doramectin.</p> <p>21 Q. What do you do as the primary</p> <p>22 investigator?</p> <p>23 A. I -- as a primary investigator,</p> <p>24 I applied -- I was the lead author on a</p> <p>25 grant proposal. I designed the study. I</p>	<p>Page 11</p>	<p>1 Cole</p> <p>2 entry "2012 to Present, adjunct professor,</p> <p>3 Department of Theater and Dance, Emory</p> <p>4 University, Atlanta, Georgia." Does that</p> <p>5 entry mean that you're a dance teacher?</p> <p>6 A. No.</p> <p>7 Q. So what do you do as an adjunct</p> <p>8 professor of the Department of Theater and</p> <p>9 Dance?</p> <p>10 A. I provide research consultations</p> <p>11 to the department.</p> <p>12 Q. Of what nature?</p> <p>13 A. With respect to designing</p> <p>14 experiments, designing research, developing</p> <p>15 measurement tools, statistical analysis and</p> <p>16 support in writing up the results for</p> <p>17 publications.</p> <p>18 Q. How does that work relate to</p> <p>19 theater and dance? What are you studying?</p> <p>20 A. An example of studying in that</p> <p>21 program would be analyzing the effect of</p> <p>22 dancing or teaching dance in front of</p> <p>23 mirrors, what effect does that have on the</p> <p>24 body image of female ballet dancers.</p> <p>25 Q. That began in 2012 continuing</p>

<p style="text-align: right;">Page 18</p> <p>1 Cole 2 A. You'll have to clarify what you 3 mean by "expert witness." 4 Q. I mean by "expert witness" that 5 you were retained for the purpose of 6 testifying about your professional opinion 7 in court. 8 A. Okay, could you repeat the prior 9 question then? 10 Q. Sure. 11 When was the last time you were 12 retained to serve as an expert witness in a 13 Section 2 case? 14 A. Three years ago. 15 Q. What was the name of that case? 16 A. Voketz versus City of Decatur. 17 Q. What were you retained to opine 18 on in that case? 19 A. Racially polarized voting. 20 Q. Did you testify in that case? 21 A. No. 22 Q. Did you draft a report for that 23 case? 24 A. I did. 25 Q. Do you know if that report was</p>	<p style="text-align: right;">Page 20</p> <p>1 Cole 2 A. I have. 3 Q. Before the Decatur case, what is 4 the most recent Section 2 case that you 5 served as an expert witness in? 6 A. I'm going to ask you to clarify 7 what you mean by "case"? 8 Q. A litigation in state or federal 9 court. 10 A. Are you assuming that a case has 11 been filed by that question? 12 Q. Yes. By that question I am 13 asking actual filed litigation for which you 14 were retained to serve as an expert witness. 15 A. That would be Large versus 16 Fremont County. 17 Q. When were you retained to serve 18 as an expert in that case? 19 A. Approximately ten years ago. 20 Q. Did you testify? 21 A. Yes. 22 Q. Did you testify in court in that 23 case? 24 A. I did. 25 Q. Is that case ongoing?</p>
<p style="text-align: right;">Page 19</p> <p>1 Cole 2 filed in court? 3 A. I believe it was. 4 Q. Were you deposed in that case? 5 A. I was not. 6 Q. Do you know whether that case 7 was resolved? 8 MR. GROSSMAN: Objection. 9 Q. Do you know whether that case is 10 ongoing? 11 A. It's ongoing. 12 Q. Do you recall -- for that case 13 if I call it the "Decatur case," will you 14 know what I mean? 15 A. We can agree on that, sure. 16 Q. In the Decatur case, were you 17 retained to perform statistical analysis? 18 A. Yes. 19 Q. What statistical analysis 20 techniques did you perform? 21 A. Homogenous precinct analysis, 22 correlational analysis, bivariate ecological 23 regression and ecological inference. 24 Q. Have you served as an expert 25 witness in any other Section 2 cases?</p>	<p style="text-align: right;">Page 21</p> <p>1 Cole 2 A. No. 3 Q. Do you know how that case was 4 resolved? 5 A. I know how it was resolved at 6 the federal district level. 7 Q. How was that case resolved at 8 the federal district level? 9 A. The Court decided in favor of 10 the plaintiff. 11 Q. Were you retained by the 12 plaintiffs in the Fremont case? 13 A. I was. 14 Q. How about the Decatur case, were 15 you retained by the plaintiffs? 16 A. No. 17 Q. Who were you retained by in the 18 Decatur case? 19 A. The City of Decatur. 20 Q. Is the City of Decatur the 21 defendant in the Decatur case? 22 A. I believe so. 23 Q. Turning back to the Decatur 24 case, what was your opinion that you offered 25 in the Decatur case?</p>

<p>1 Cole 2 MR. GROSSMAN: Objection. 3 Q. If you understand, you can 4 answer. 5 A. Can you get more specific with 6 your question? 7 Q. Yes. 8 Did you opine in the Decatur 9 case, did you opine that elections were 10 racially polarized? 11 A. I did. 12 Q. In the Fremont case, did you 13 opine that elections were racially 14 polarized? 15 A. I did. 16 Q. Ballpark, how many Section 2 17 cases have you worked on as an expert 18 witness? 19 A. Approximately 30. 20 Q. In each of those cases, did you 21 opine on whether elections are racially 22 polarized? 23 A. I believe so. 24 Q. Have you ever concluded in your 25 role as an expert witness that elections</p>	Page 22	<p>1 Cole 2 A. That's right. 3 Q. Explain that. What do you mean 4 by that? 5 A. I might be retained as a 6 consultant to examine some jurisdiction to 7 assess whether voting is racially polarized 8 there, and in some of those situations, I 9 might find that racially polarized voting 10 was not present in general. 11 Q. Have you ever determined that 12 there was not racially polarized voting in 13 that context as a consultant? 14 A. Yes. 15 Q. How many times? 16 A. This is going to have to be a 17 rough guess. 18 Q. Okay. 19 A. About how many times? 20 A. You know, I actually -- this is 21 really a rough guess. So I'd say 10 to 15 22 times. 10 to 15 times perhaps. 23 Q. Do you recall any specific 24 instance? 25 A. I don't.</p>	Page 24
<p>1 Cole 2 were not racially polarized? 3 A. Yes. 4 Q. In what case was that? 5 A. I should have asked you to 6 clarify the prior question. You didn't say 7 "case." You asked if I ever had opined -- 8 could you ask the question again? 9 Q. Sure. 10 In all of the cases for which 11 you have served as an expert witness, have 12 you ever opined that elections were not 13 racially polarized? 14 A. Assuming that you mean a case 15 that has actually been filed? 16 Q. Yes. 17 A. Okay. In those cases I've 18 always testified that voting was in general 19 racially polarized. 20 Q. That's about 30 cases, right? 21 A. We can count them up in the CV, 22 but that's an approximation. 23 Q. Sometimes you serve as an expert 24 in connection with cases that haven't been 25 filed; is that right?</p>	Page 23	<p>1 Cole 2 Q. Do you recall when the last time 3 you were retained as a consultant and found 4 that there was not racially polarized 5 voting? 6 A. More than 15 years ago. 7 Q. 20 years ago? 8 A. Sure. 9 Q. Again, ballpark figure, how many 10 times have you served as a consultant in 11 Section 2 cases where no litigation has 12 actually been filed? 13 A. Approximately 20 times. 14 Q. So is it accurate to say that 15 your best recollection is that maybe 10 or 16 15 of those 20 times you concluded that 17 there was not racially polarized voting? 18 A. I would say about half, about 19 half the time. 20 Q. But you can't recall any 21 specific instance where that occurred? 22 A. I can't. 23 Q. Can you recall any specific 24 instance when you acted as a consultant and 25 did find racially polarized voting?</p>	Page 25

<p style="text-align: right;">Page 26</p> <p>1 Cole 2 A. Do you want to expand that 3 question? The way it's phrased, it's pretty 4 broad. 5 Q. Of the 20 or so times in which 6 you have served as a consultant, do you 7 recall any of the specific instances when 8 you opined that there was racially polarized 9 voting in the jurisdiction? 10 A. I can't remember a specific 11 instance. 12 Q. Does your CV list the retentions 13 as a consultant in unfiled cases? 14 A. It will list the organizations 15 that retained me. 16 Q. Could you show me one? 17 A. Sure. On page 8, half the way 18 down, Florida Rural Legal Services. 19 Q. Do you recall, when you were 20 retained by Florida Rural Legal Services, 21 you opined that there was racially polarized 22 voting in the jurisdiction you were asked to 23 analyze? 24 A. Could you repeat the question? 25 Q. What did you conclude for</p>	<p style="text-align: right;">Page 28</p> <p>1 Cole 2 analyze in February of 2017? 3 A. Some data I was provided and 4 some I found on my own. 5 Q. Did you begin your analysis in 6 February 2017? 7 A. It may have taken a while before 8 I actually began doing analyses. 9 Q. Did you start work in February 10 2017? 11 A. Yes. 12 Q. You bill by the hour for your 13 work on this case, correct? 14 A. Correct. 15 Q. At \$150 an hour; is that right? 16 A. Yes. 17 Q. Do you record your time entries 18 when you work on this case? 19 A. I do. 20 Q. Have you recorded your time 21 since February 2017? 22 A. Yes. 23 Q. Do you know how many hours so 24 far you have worked on the case? 25 A. Yes.</p>
<p style="text-align: right;">Page 27</p> <p>1 Cole 2 Florida Rural Legal Services? 3 A. I don't recall specifics. There 4 were a number of projects there. I don't 5 remember the specifics. 6 Q. Do you recall what they asked 7 you to opine on? 8 A. Racially polarized voting. 9 Q. Do you recall what you opined? 10 A. I don't. 11 Q. Okay. Let's switch gears a bit 12 and bring ourselves up to the present. 13 When were you retained to serve 14 as an expert witness for purposes of this 15 case? 16 MR. GROSSMAN: Objection. 17 A. February of 2017. 18 Q. What were you retained to do in 19 February of 2017? 20 A. To explore racially polarized 21 voting in East Ramapo Central School 22 District. 23 Q. What do you mean by "explore"?</p> <p>24 A. Do some analyses. 25 Q. Were you provided data to</p>	<p style="text-align: right;">Page 29</p> <p>1 Cole 2 Q. How many hours have you worked 3 on the case? 4 A. Approximately 140. 5 Q. Do you identify the tasks that 6 you are performing in your time entries? 7 A. Yes. 8 Q. Do you know how many hours you 9 spent working on drafting your report? 10 A. Yes. 11 Q. How many hours? 12 A. I don't recall the specific 13 number. I can provide an estimate. 14 Q. Ballpark? Estimates are your 15 trade. 16 A. Approximately 25. 17 MR. LEVINE: Let's go ahead and 18 mark another exhibit to take a look 19 at. Cole Exhibit 2. 20 (Cole Exhibit 2, Preliminary 21 Expert Report of Steven P. 22 Cole, Ph.D., marked for 23 identification, as of this date.) 24 Q. You have before you a document 25 that we have marked as Cole Exhibit 2.</p>

<p style="text-align: right;">Page 30</p> <p>1 Cole 2 Please take a moment to take a look at it 3 and familiarize yourself with the document. 4 There appears to be highlights in this 5 document?</p> <p>6 MR. LEVINE: Would anybody 7 object that we continue the deposition 8 working with this one, but we will go 9 and print some clean ones to use as 10 the exhibit and we could sub them in?</p> <p>11 MR. GROSSMAN: That's fine.</p> <p>12 MR. LEVINE: Could you go print 13 me some clean copies of this exhibit?</p> <p>14 Q. We are still on the record. 15 Let's work with this exhibit.</p> <p>16 Do you recognize the document 17 that we've marked as Cole Exhibit 2?</p> <p>18 A. Understanding that the 19 underlinings, the highlighting is not mine, 20 yes.</p> <p>21 Q. Is this document the -- this is 22 the Preliminary Expert Report of Steven P. 23 Cole, Ph.D., correct?</p> <p>24 A. Correct.</p> <p>25 Q. Did you prepare this report?</p>	<p style="text-align: right;">Page 32</p> <p>1 Cole 2 case? 3 A. I'm not sure if I'm going to be 4 asked to do anything further. Given the -- 5 if I'm asked to do other work, other 6 analyses, they might reflect on these 7 results.</p> <p>8 Q. Is there anything else that you 9 would want to do with this report -- let me 10 see if I can rephrase that.</p> <p>11 Is there any additional data 12 that you think you would need to make this a 13 final report?</p> <p>14 A. Not at this time.</p> <p>15 Q. Is there any other analytical 16 technique that you would want to do to make 17 this a final report?</p> <p>18 A. Not at this time.</p> <p>19 Q. Was there any data that you 20 asked for that were not provided?</p> <p>21 A. I don't think so.</p> <p>22 Q. What data were you provided -- 23 well, yes.</p> <p>24 What data were you provided to 25 analyze for this report?</p>
<p style="text-align: right;">Page 31</p> <p>1 Cole 2 A. I did. 3 Q. Did you draft the report 4 yourself? 5 A. I did. 6 Q. Did anybody else work with you 7 on this report? 8 A. Yes. 9 Q. Who else? 10 A. Counsel. 11 Q. Anybody else besides counsel? 12 A. No. 13 Q. No research assistants? 14 A. No. 15 Q. The report is titled 16 "Preliminary Expert Report." What does it 17 mean to be a preliminary expert? 18 A. Keeping open the possibility 19 that there might be a subsequent report. 20 Q. Does the title "Preliminary 21 Expert Report" indicate that your opinions 22 reflected in the report are incomplete? 23 A. No. 24 Q. So are these your final opinions 25 on the questions you were asked in this</p>	<p style="text-align: right;">Page 33</p> <p>1 Cole 2 A. The data that I was provided -- 3 MR. GROSSMAN: Objection. 4 Q. I will rephrase it. 5 Were you provided data to 6 analyze to form your opinions in this 7 report? 8 A. Yes. 9 Q. Who provided you data? 10 A. I received data from the school 11 district's website, from counsel, from 12 plaintiffs' expert, Bill Cooper, and from 13 Steve White. 14 Q. Who is Steve White? 15 A. Steve White is a former 16 candidate for the school board in East 17 Ramapo. 18 Q. How do you know Steve White? 19 A. Through counsel. 20 Q. What data did Steve White 21 provide you? 22 A. Voter registration data. 23 Q. Where did Steve White get voter 24 registration data from? 25 A. I'm not sure.</p>

1 Cole 2 Q. How do you know the data he 3 provided you is accurate? 4 A. There were multiple sources of 5 the data and I compared them. 6 Q. What do you mean by that? 7 A. I mean the voter totals from the 8 voter registration data, there were 9 consistent results across data. 10 Q. When you say that Steve White 11 provided you voter registration data, what 12 do you mean by "voter registration data"? 13 A. These are lists of voters in 14 Rockland County. 15 Q. Lists of the names of voters? 16 A. Voters of -- names, addresses -- 17 names and addresses. 18 Q. What do you use that data for? 19 A. Those data were used to 20 establish what election districts are 21 comprised in the different polling places in 22 the school district. 23 Q. How? 24 A. What do you mean, how? 25 Q. How do you use that data to	Page 34 1 Cole 2 Q. Picking back up, did you do 3 anything to independently verify the data 4 provided to you by Steve White? 5 A. Yes. 6 Q. What did you do? 7 A. I aggregated the data by 8 election district and polling place. 9 Q. How does that verify the data? 10 A. We're using the addresses in the 11 data in the election districts to see if 12 they match up to the polling places, and so 13 what I did was to aggregate the data by 14 election district and polling place to see 15 if they match up. 16 Q. Is it fair to say that you 17 didn't rely on any data you received from 18 Steve White unless you independently 19 verified it? 20 MR. GROSSMAN: Objection. 21 Q. Do you understand? I can 22 rephrase. 23 A. Could you rephrase? 24 Q. Sure. 25 Did you independently verify all	Page 36

<p>1 Cole 2 East Ramapo school board election? 3 A. No. 4 Q. You didn't analyze the 2011 5 school board election in East Ramapo? 6 A. No. 7 Q. You didn't analyze the 2010 8 school board election in East Ramapo? 9 A. No. 10 Q. Why not? 11 A. I felt that five years of 12 elections, school board elections, was 13 sufficient. 14 Q. The 2014 election, those 15 contests were uncontested, correct? 16 A. Correct. 17 Q. Did you analyze the uncontested 18 elections in 2014? 19 A. I did not perform racially 20 polarized voting analyses on those contests. 21 Q. Other than the 2012 presidential 22 election, did you analyze election data from 23 any other positions other than school board 24 elections? 25 A. No.</p>	<p>Page 42</p> <p>1 Cole 2 jurisdictions were just too small. 3 Q. Turning back to the East Ramapo 4 school board, do you know whether any Black 5 candidates were elected to the school board 6 before 2013? 7 A. Yes. 8 Q. Were there? 9 A. I'm going to rephrase that. I 10 don't remember. 11 Q. The question was: Do you know 12 whether any Black candidates were elected to 13 the board of education prior to 2013? 14 A. I don't recall. 15 Q. Do you know whether any Latino 16 candidates were elected to the board of 17 education before 2013? 18 A. Again, I'm not sure. 19 Q. Did you do anything to 20 investigate whether there may have been 21 racial polarization in elections in East 22 Ramapo prior to 2013? 23 A. I have not. 24 Q. So it's fair to say that you're 25 not opining to anything that occurred in</p>
<p>1 Cole 2 Q. So you didn't analyze election 3 data from town board elections for towns in 4 Rockland County? 5 A. I did not analyze them. 6 Q. Were you provided data from town 7 board elections? 8 A. If I'm not mistaken, it's town 9 council elections, but, yes, I was provided 10 some town data. 11 Q. Who provided you that data? 12 A. Counsel. 13 Q. Did you analyze that data? 14 A. I did not. 15 Q. Why not? 16 A. I felt that those contests only 17 included a small segment of the district -- 18 school district voters. 19 Q. Other than the town level data, 20 were you provided any other election data? 21 A. There may have been some other 22 small jurisdiction data. I just don't 23 remember specifically what they were, but 24 the reason I didn't analyze them -- I just 25 don't remember -- was it that their</p>	<p>Page 43</p> <p>1 Cole 2 East Ramapo prior to the 2013 elections; is 3 that right? 4 A. Clarify, you're talking about 5 school board back to 2013, because there was 6 a 2012 -- 7 Q. Yes. 8 A. Okay, so I am opining about -- 9 how about you rephrasing the question? 10 Q. Yes. 11 Did you do anything to 12 investigate whether there may have been 13 racial polarization in East Ramapo school 14 board elections prior to 2013? 15 A. I did not. 16 Q. Specifically in reference to 17 your report, take a look at paragraph 1 on 18 the first page of the report. At the top of 19 the page it says, "Page 2 of 46." 20 You formed opinions on three 21 questions, right? 22 MR. GROSSMAN: Objection. 23 A. There were three main questions 24 that I focused on. 25 Q. Let's talk about those three</p>

<p>1 Cole 2 main questions first. 3 The first question was whether 4 Black voters in the district are politically 5 cohesive, correct? 6 A. Correct. 7 Q. Your opinion on that question is 8 that they are politically cohesive, correct? 9 A. Correct. 10 Q. Is that still your opinion as 11 you sit here today? 12 A. It is. 13 Q. The second question was whether 14 Black and Latino voters are cohesive, right? 15 A. Yes. 16 Q. And you also answered that 17 question in the affirmative, correct? 18 A. Correct. 19 Q. Is that still your opinion as 20 you sit here today? 21 A. Yes, it is. 22 Q. And the third question you were 23 asked to opine on is whether candidates 24 preferred by Black or a coalition of Black 25 and Latino voters in the district are</p>	Page 46	<p>1 Cole 2 A. In terms of the questions I was 3 asked to analyze, those were the questions. 4 Q. Did you analyze any other 5 questions besides those three? 6 A. In conducting my research, I 7 explored the issue of slating in the school 8 district, slating of candidates. I explored 9 the racial makeup of the schools. 10 Q. Anything else? 11 A. Those were the main other areas 12 of inquiry. 13 Q. What do you mean by "explored"? 14 A. Did research on. 15 Q. What do you mean by "slating"? 16 A. I mean in the school district, 17 are there groups of candidates running 18 together as a slate. 19 Q. Did you form an opinion on the 20 issue of the slating of candidates in East 21 Ramapo school board elections? 22 A. I did. 23 Q. What was that opinion? 24 A. That slates of candidates were 25 supported. There was one slate of</p>	Page 48
<p>1 Cole 2 usually defeated by candidates supported by 3 the White majority voting as a bloc, 4 correct? 5 A. Correct. 6 Q. And you also answered that 7 question in the affirmative? 8 A. Yes. 9 Q. Is that still your opinion as 10 you sit here today? 11 A. It is. 12 Q. What other questions were you 13 asked to consider? 14 MR. GROSSMAN: Objection. 15 MR. LEVINE: What is the basis 16 for that objection? 17 MR. GROSSMAN: It's vague. It's 18 unclear, what other questions and in 19 what context. 20 Q. Your answer to one of my prior 21 questions was, to summarize, that those 22 three questions I just asked you about were 23 primary questions. Did you mean to suggest 24 that there were other questions you were 25 asked to analyze?</p>	Page 47	<p>1 Cole 2 candidates that were typically supported by 3 groups that were supportive of public 4 schools, another group of candidates 5 typically were supported by interests that 6 were supportive of private schools. 7 Q. What do you mean "supportive of 8 public schools"? 9 A. Campaign for, held meetings for, 10 wrote letters in newspapers for, those kinds 11 of things. 12 Q. Maybe I'm not clear. Public 13 schools are an institution. What do you 14 mean "supportive of public schools"? 15 A. Typically the groups who support 16 public schools or support a slate of 17 candidates, supporters of public schools are 18 looking to improve the quality of the public 19 schools. 20 (Record read.) 21 A. Yes. 22 Q. In paragraph 6 of your report 23 you state that "sources show that minority 24 preferred candidates generally run with the 25 support of organizations advocating for</p>	Page 49

<p style="text-align: right;">Page 50</p> <p>1 Cole 2 increased investment in the district's 3 public schools." Is that what you're 4 referring to when you testified about 5 organizations supportive of public schools? 6 A. That kind of thing, yes. 7 Q. What organizations are you 8 referring to? 9 A. I think some of the groups, one 10 was called Power of Ten, one was Support 11 East Ramapo. 12 Q. What do you know about Power of 13 Ten? 14 A. I don't know much about them. 15 Q. Is it a membership organization? 16 A. What do you mean by "a 17 membership organization"?</p> <p>18 Q. Is it an organization with 19 members? 20 A. I believe so. 21 Q. Do you know how many members? 22 A. I don't. 23 Q. Any other organizations? 24 A. Those were the two main ones. 25 Q. Turning back to paragraph 6, the</p>	<p style="text-align: right;">Page 52</p> <p>1 Cole 2 mean by "leaders"?" 3 A. One example was, in one of the 4 contests a letter was published, signed by 5 approximately 50 private school 6 administrators. 7 Q. So are private school 8 administrators leaders favoring lower taxes? 9 A. I believe they are. 10 Q. Anybody else? 11 A. That's it for now. 12 Q. What do you know about private 13 schools in East Ramapo? 14 A. That's a pretty broad question. 15 Q. Do you know anything about the 16 private schools in East Ramapo? 17 MR. GROSSMAN: Objection. 18 A. Yes. 19 Q. What do you know about the 20 private schools in East Ramapo? 21 MR. GROSSMAN: Objection. 22 A. I know there are approximately 23 70, seven-zero. 24 Q. How do you know that? 25 A. I reviewed demographic data from</p>
<p style="text-align: right;">Page 51</p> <p>1 Cole 2 remainder of the sentence that we are 3 looking at says, "and White preferred 4 candidates generally run with the support of 5 organizations and leaders favoring lower 6 taxes while maintaining support for private 7 schools." Is that what you were referring 8 to when you testified earlier when you used 9 the phrase "supportive of private schools"?</p> <p>10 A. Yes. 11 Q. What organizations are you 12 referring to there? 13 A. One organization is called 14 SERTA, S-E-R-T-A. 15 Q. What do you know about SERTA? 16 A. I believe their premise is to 17 try to keep taxes low in the district. 18 Q. Is that an organization with 19 members? 20 A. I believe so. 21 Q. Do you know how many members it 22 has? 23 A. I don't. 24 Q. You used the phrase 25 "organizations" and "leaders." What do you</p>	<p style="text-align: right;">Page 53</p> <p>1 Cole 2 the New York State Education Department. 3 Q. Do you recall what data 4 specifically you reviewed? 5 A. Data on their website about 6 school enrollment by race. 7 Q. Do you know whether any of the 8 private schools in East Ramapo are religious 9 schools? 10 A. Yes. 11 Q. About how many of them are 12 religious schools? 13 A. From viewing the website, I saw 14 that most of them are religious schools. 15 Q. What religion? 16 A. Most of them were related to the 17 Jewish religion. 18 Q. Have you heard the term 19 "yeshiva" before? 20 A. Yes. 21 Q. Do you know whether most of 22 these private schools in East Ramapo are 23 yeshivas? 24 A. Many of the names were yeshivas, 25 yes.</p>

<p style="text-align: right;">Page 54</p> <p>1 Cole 2 Q. What is a yeshiva in your 3 understanding? 4 A. A yeshiva is a school devoted to 5 educating Jewish teachings, Hebrew. 6 Q. Moving one paragraph up in your 7 report stating your conclusion, the final 8 sentence of paragraph 5 you state, "The most 9 recent six contested elections exhibit an 10 extreme degree of racial polarization that I 11 have rarely seen in over 25 years of 12 analyzing voting behavior." 13 My first question is: When you 14 say "the most recent six contested 15 elections," are you referring to the school 16 board elections in 2017 and 2016? 17 A. Yes. 18 Q. What do you mean by "an extreme 19 degree of racial polarization"? 20 A. "Racially polarized voting" 21 basically defined is when races vote 22 differently. You could have in a contest 23 where we're looking at, let's say, Whites 24 and Blacks, you might have a situation where 25 55 percent of the Whites vote for one</p>	<p style="text-align: right;">Page 56</p> <p>1 Cole 2 much support a particular racial group gives 3 for a candidate. Cohesion is a continuum, 4 is a contest where a particular racial group 5 gives 51 percent of their support for a 6 candidate. That's a rather weak example of 7 cohesion. We move up to 60 percent, if it's 8 a 60/40 split in political circles, that 9 might be considered a rather strong split. 10 70/30 is even greater. 11 Q. So I understand your testimony, 12 so what you just described relates to 13 cohesion. Separating that from racial 14 polarization, an election is racially 15 polarized when 51 percent of White voters 16 vote for one candidate and 51 percent of 17 Black voters vote for another candidate; is 18 that right? 19 A. That's right. 20 MR. GROSSMAN: Is this a good 21 stopping point? We've gone about 90 22 minutes. 23 Q. Do you want to take a break? 24 A. Sure. 25 MR. LEVINE: Let's take a break.</p>
<p style="text-align: right;">Page 55</p> <p>1 Cole 2 candidate and 55 percent, in this example, 3 of the Blacks vote for the other candidates. 4 I'd consider that polarized. 5 Q. Just following from your 6 example, which is very helpful, would you 7 conclude that there is racially polarized 8 voting if there was 51 percent White voters 9 voting for one candidate and 49 percent of 10 White voters voting for another candidate 11 and 49 percent of Black voters voting for 12 candidate A and 51 percent of Black voters 13 voting for candidate B? I could probably do 14 that better. 15 The same split that you just 16 described, but take it down four more 17 points, so it's 51 percent and 49 percent; 18 would that do the trick? 19 A. That would be a relatively weak 20 example of racially polarized voting, and 21 usually we just look at just more than one 22 contest, but we're just using this as an 23 example. 24 What we're looking at really -- 25 what we're looking at here is cohesion, how</p>	<p style="text-align: right;">Page 57</p> <p>1 Cole 2 (Recess taken.) 3 MR. LEVINE: Could you read back 4 the last question and answer to pick 5 up where we were? 6 (Record read.) 7 Q. Back on the record after the 8 break. 9 Would an election not be 10 racially polarized if a majority of the 11 Black voters and a majority of White voters 12 vote for the same candidate? 13 A. That particular contest, that 14 particular example would be an example where 15 it was not polarized. 16 Q. Does it matter if 80 percent of 17 White voters vote for a candidate and 51 18 percent of Black voters vote for the same 19 candidate or is that not racially polarized? 20 MR. GROSSMAN: Objection. 21 A. Could you rephrase that? 22 Q. All right. 23 Playing with the same example -- 24 A. Yes. 25 Q. -- does it matter if the degrees</p>

<p style="text-align: right;">Page 62</p> <p>1 Cole 2 performed using the ecological inference 3 technique, correct? 4 A. Correct. That's one of the 5 analyses reported in this table. 6 Q. In the middle of the page 7 beneath May 21, 2013, do you see that table? 8 A. I do. 9 Q. The first column has a title 10 that says "Percent Latino Voters Voting for 11 Candidate, EI." Does that mean that this 12 column reports your estimates using the 13 ecological inference technique? 14 A. Yes. 15 Q. Moving over one column where the 16 column is entitled "Percent NH Black Voters 17 Voting for Candidate, EI," does that column 18 report the results of your ecological 19 inference analysis for non-Hispanic Black 20 voters; is that what that means? 21 A. Yes. 22 Q. And the next column over, 23 "Percent NH White Voting for White Voters 24 Voting for Candidate" and it says "EI," does 25 that column report the results of your</p>	<p style="text-align: right;">Page 64</p> <p>1 Cole 2 non-Hispanic Black voters voting for 3 candidate, EI" for the "Seat of Moses 4 Friedman" in 2013, do you see where I'm 5 looking? 6 A. I do. 7 Q. You're reporting that 73.9 8 percent of non-Hispanic Black voters voted 9 for a candidate named MaraLuz Corado; is 10 that correct? 11 A. Correct. 12 Q. You're reporting your conclusion 13 that 29.3 percent of non-Hispanic Black 14 voters voted for a candidate named Margaret 15 Tuck, correct? 16 MR. GROSSMAN: Objection. 17 A. You're going to have to repeat 18 that. 19 Q. In this column are you reporting 20 your conclusion that 29.3 percent of 21 non-Hispanic Black voters voted for 22 candidate Margaret Tuck? 23 MR. GROSSMAN: Objection. 24 A. 29.3 is an estimate from the 25 ecological inference program of what percent</p>
<p style="text-align: right;">Page 63</p> <p>1 Cole 2 ecological inference analysis for the 3 percentage of non-Hispanic White voters 4 voting for a candidate in 2013? 5 A. Yes. 6 Q. The next column over is 7 different. It says, "Percentage NH White 8 Voters Voting for Candidate, HPA." What 9 does "HPA" stand for? 10 A. That stands for homogenous 11 precinct analysis. 12 Q. Does that column report the 13 result of your analysis using the homogenous 14 precinct analysis for the percentage of 15 non-Hispanic White voters voting for a 16 particular candidate in 2013? 17 A. Yes. 18 Q. The final column says "Votes." 19 What is that reporting? 20 A. Those are the vote totals that 21 each candidate received in the contest. 22 Q. Do the numbers in the "Votes" 23 column come from the official vote tallies? 24 A. Yes. 25 Q. Looking at "Percentage</p>	<p style="text-align: right;">Page 65</p> <p>1 Cole 2 of non-Hispanic Black voters voted for 3 Margaret Tuck. 4 Q. How did you generate that 5 estimate? 6 A. These estimates are generated 7 with Gary King's program Ecological 8 Inference. 9 Q. Are you an expert in Professor 10 King's Ecological Inference technique? 11 A. What do you mean by "expert"? 12 Q. Well, that's an interesting 13 question, I suppose. Why don't we take a 14 few steps back before we get back to that 15 question. 16 What is Professor King's 17 ecological inference technique? 18 A. The methodology was developed in 19 the late 1990s. It combines several 20 statistical techniques; the method of bounds 21 and a maximum likelihood, statistical 22 methodology to provide -- can be used to 23 generate estimates of racially polarized 24 voting. 25 Q. Do you hold yourself out to be</p>

<p>1 Cole 2 an expert in using Professor King's 3 Ecological Inference technique? 4 A. Again, in this context what do 5 you mean by "expert"? 6 Q. I guess the relevant question 7 is: What do you mean by expert because this 8 is an expert report? 9 Do you consider yourself to be 10 an expert in the use of Professor King's 11 Ecological Inference technique? 12 A. I'm an expert in the use of the 13 technique. 14 Q. How many times have you 15 performed an ecological inference analysis? 16 A. That's an awfully broad 17 question. Are you asking how many times I 18 ran it for this case? 19 Q. No. 20 How about we phrase it this way: 21 In how many cases have you performed an 22 ecological inference analysis? 23 A. Again, are you referring to 24 cases that have actually been filed? 25 Q. Yes.</p>	Page 66	<p>1 Cole 2 A. I don't recall. 3 Q. Is EzI open-source software? 4 A. I believe so. 5 Q. Have you downloaded Mods for the 6 software, M-O-D-S, modifications? 7 A. I don't believe so. 8 Q. Do you know who produces the 9 software? 10 A. I know who authored the 11 software. 12 Q. Who authored the software? 13 A. Gary King. 14 Q. Did you license it from Gary 15 King? 16 A. No. 17 Q. When did you obtain the program 18 from -- well, when did you obtain the 19 program? 20 A. The program that I used for 21 these analyses, I believe I obtained it 22 about five years ago. 23 Q. Have you updated that software 24 since then? 25 A. I have not.</p>	Page 68
<p>1 Cole 2 A. Approximately a dozen. 3 Q. Do you use a software program to 4 perform the King's Ecological Inference 5 technique? 6 A. I do. 7 Q. Does the software program have a 8 name? 9 A. Yes. 10 Q. What is it called? 11 A. EzI. 12 Q. Do you know what "EzI" stands 13 for? 14 MR. GROSSMAN: I think it's the 15 word "easy" followed by the letter I; 16 is that correct? 17 THE WITNESS: No. 18 MR. GROSSMAN: It's EzI. 19 (Record read.) 20 A. I actually don't. 21 Q. What operating system do you use 22 to run EzI? 23 A. It is a DOS-based system. 24 Q. Do you know what version of the 25 software you have?</p>	Page 67	<p>1 Cole 2 Q. What information do you need to 3 input into the software to generate an EI 4 estimate? 5 A. You need total votes cast, you 6 need proportion of the votes cast for a 7 particular candidate, you need proportion of 8 the racial percentage and you need turnout. 9 Q. Did you have all of that 10 information when you ran these EI estimates? 11 A. Yes. 12 Q. What information did you input 13 for turnout? 14 A. Total number of votes as a 15 function of total CVAP. 16 Q. What do you mean "as a function 17 of"?</p> <p>18 A. Related to the voting age 19 population.</p> <p>20 Q. By "CVAP" you mean citizen 21 voting age population?</p> <p>22 A. That's right.</p> <p>23 Q. Do you mean to say that turnout 24 is the number of votes cast as subtracted 25 from the total of CVAP?</p>	Page 69

<p>1 Cole 2 A. Divided by. 3 Q. Divided by, okay. 4 Does that tell you information 5 about the turnout by racial category? 6 A. What do you mean "does that tell 7 you"? 8 Q. Does that data tell you any 9 information about the turnout by racial 10 category? 11 A. Those data by itself do not. 12 Q. Are you able to estimate turnout 13 by racial category? 14 A. Yes. 15 Q. How do you do that? 16 A. That's part of what the 17 ecological inference program can do. 18 Q. Did you generate estimates of 19 the turnout by racial category for the 2013 20 races? 21 A. That's part of the output. 22 Q. Did you report that in your 23 report? 24 A. I did not. 25 Q. Why not?</p>	Page 70	<p>1 Cole 2 to perform the ecological inference 3 analysis, correct? 4 A. Correct. 5 Q. In paragraph 26 of your report 6 you say that one of the advantages of 7 ecological inference is that "measures of 8 the statistical accuracy of the estimates 9 can be generated." Do you see that? 10 A. What paragraph are you reading 11 from? 12 Q. 26. 13 A. It's page 26. What paragraph? 14 Q. Sorry. 15 A. Or are you talking about 16 paragraph 26? 17 Q. I'm talking about paragraph 26. 18 A. I'm sorry. 19 Q. Page 11, paragraph 26, the 20 second to last sentence of the paragraph, I 21 can read it, it says, "Additional advantages 22 of EI are that estimates of RBV can be 23 generated for each precinct or polling place 24 and that measures of the statistical 25 accuracy of the estimates can be generated."</p>	Page 72
<p>1 Cole 2 A. That's not a main focus of my 3 inquiry. 4 Q. Do you have that information? 5 A. I captured that information, 6 yes. 7 Q. How did you capture it? 8 A. It's saved in a file. 9 Q. On your computer? 10 A. Yes. 11 Q. Was there any other data that 12 you required, but were not provided to 13 perform the ecological inference analysis 14 for 2013? 15 MR. GROSSMAN: Objection. 16 A. Could you repeat that? 17 Q. Yes. 18 Was there any data that you 19 needed that you weren't provided to perform 20 the ecological inference analysis for 2013? 21 A. I don't know quite how to answer 22 the question the way you phrased it. Some 23 of the data that I used, I wasn't provided. 24 I obtain on my own. 25 Q. You had all the data you needed</p>	Page 71	<p>1 Cole 2 Are you with me? 3 A. I am. 4 Q. What do you mean by "measures of 5 the statistical accuracy of the estimates"? 6 A. What Gary King's EI program can 7 do is generate a measure called -- it's an 8 error term, it's a standard error, that is 9 an index of the statistical accuracy of the 10 estimate. 11 Q. Did you measure the statistical 12 accuracy of the estimates for the 2013 13 races? 14 A. Yes. They're part of the 15 output. 16 Q. Did you report the measures of 17 the statistical accuracy of the estimates in 18 2013? 19 A. They're not reported here. 20 Q. Why not? 21 A. It's not a requirement of the 22 report like this to report the standard 23 errors. 24 Q. Do you know what the standard 25 errors for the estimates for the 2013 races</p>	Page 73

<p style="text-align: right;">Page 78</p> <p>1 Cole 2 for his estimates, and he states there that 3 given the underlying distribution that is 4 assumed for his model, that exact confidence 5 intervals are not appropriate. They're 6 going to be approximations. 7 So to answer your question -- 8 to -- that's how I'm going to answer your 9 question. 10 Q. All right. Let's take that in 11 pieces. 12 First in reference to Professor 13 King's 1997 book, are you aware of any 14 further work that has been done on the 15 ecological inference technique in the last 16 20 years? 17 A. Yes, I am. 18 Q. Are you aware of any additional 19 work that has been done with specific 20 reference to confidence intervals? 21 A. Standard errors, but not 22 necessarily confidence intervals. 23 Q. What do you mean by that? 24 A. I mean in articles published 25 since 1997, authors refer to the standard</p>	<p style="text-align: right;">Page 80</p> <p>1 Cole 2 A. Given Gary King's guidance, we 3 could come up with the approximation to a 4 confidence interval for these data. 5 Q. So you could generate 6 approximate confidence intervals for your 7 estimates for the 2013 election? 8 A. Yes. 9 Q. But you did not generate 10 approximate confidence intervals for the 11 2013 election, correct? 12 A. I reviewed the standard errors 13 that were produced by EI and determined that 14 they were small enough to have confidence in 15 these estimates. 16 Q. But you did not generate 17 approximate confidence intervals for the 18 estimates for the 2013 election, correct? 19 A. I did not generate approximate 20 confidence intervals in writing, but I 21 examined the standard errors for each 22 estimate. 23 Q. So one more time, you did not 24 generate approximate confidence intervals 25 for the 2013 election estimates and write it</p>
<p style="text-align: right;">Page 79</p> <p>1 Cole 2 errors are generated with the technique, but 3 not necessarily getting into setting up 4 confidence intervals. 5 Q. If I use the term "confidence 6 level," do you know what that means? 7 A. Yes. 8 Q. So do you have an understanding 9 that a 95 percent confidence level is a 10 standard confidence level in social science 11 research? 12 A. I'm going to answer it, it 13 depends. 14 Q. It depends on what? 15 A. Depends upon what area of 16 inquiry you're talking about. 17 I'll give you some examples. If 18 you have a directional hypothesis in social 19 sciences, a 90 percent confidence interval 20 can be set up. In the area of assessing the 21 randomness of a sample, lower confidence 22 intervals are often used. 23 Q. Could you calculate confidence 24 intervals for your estimates for the 2013 25 election?</p>	<p style="text-align: right;">Page 81</p> <p>1 Cole 2 down? 3 A. I did not write them down, 4 that's correct. 5 Q. Did you generate approximate 6 confidence intervals in your mind? 7 A. I did. 8 Q. Do you recall what those 9 approximate confidence intervals were? 10 A. I don't. 11 Q. Do you recall whether they were 12 large confidence intervals? 13 A. There was a range of confidence 14 intervals, but I felt they were tight enough 15 to have confidence in these results. 16 Q. How confident in these results 17 are you? 18 A. What do you mean by "confident"? 19 Q. Are you very confident in these 20 results? 21 A. Yes. 22 Q. So you are very confident in 23 your estimate that Pierre Germain received 24 91.8 percent of non-Hispanic Black voters 25 votes in 2013?</p>

<p>1 Cole 2 MR. GROSSMAN: Objection. 3 Q. Is that right? 4 A. I analyzed racially polarized 5 voting in several ways for this report. I 6 did correlation analysis, I did EI, I did 7 homogenous precinct analysis. I also did 8 supplemental qualitative research. I took 9 what is called a mixed method approach to 10 doing this study, which has been prevalent 11 now for about 20 years, where you use both 12 quantitative and qualitative information to 13 assess some research question. 14 Q. Okay. But with respect to your 15 EI analysis, are you very confident in your 16 estimate that Pierre Germain received 91.8 17 percent of Black voters votes in the 2013 18 election? 19 A. Given these other kinds of data 20 and results that I have, I find that these 21 estimates don't square with the other 22 approaches. As a matter of fact -- I'm just 23 going to leave it at that. 24 Q. Does that mean you are not 25 confident that Pierre Germain receive 91.8</p>	Page 82	<p>1 Cole 2 not confident in the overall pattern of 3 results given the correlations, given the 4 supplemental data that this reflects what's 5 going on. 6 Q. Okay. With specific reference 7 to your estimate that 91.8 percent of 8 non-Hispanic Black voters voted for Pierre 9 Germain in 2013, are you confident in that 10 estimate? 11 A. Given that the estimate is 12 disparate from the other pieces of data and 13 results, I'm not confident. 14 Q. Did you do something different 15 in your EI analysis of 2013 that you did not 16 do for other years? 17 A. I performed it the same way I 18 did the other years. 19 Q. Did you use the same data for 20 the 2013 election that you used for the 21 other years? 22 A. How could you use the same data? 23 Q. Did you use the same sort of 24 data? 25 A. The same sort of data, yes.</p>	Page 84
<p>1 Cole 2 percent of Black voters votes in 2013? 3 A. I think at one point of my 4 report I wrote that I felt that these 5 results were inconclusive. 6 Q. If these results are 7 inconclusive, does that mean that you are 8 not confident in your estimate that Pierre 9 Germain received 91.8 percent of Black 10 voters votes in 2013? 11 A. Could you repeat that? 12 Q. If you regard these estimates as 13 inconclusive, does that mean that you are 14 not confident that Pierre Germain received 15 91.8 percent of non-Hispanic Black voters 16 votes in 2013? 17 A. What I am inconclusive about is 18 whether or not these results reflect 19 racially polarized voting. 20 Q. Does that mean that you are, in 21 fact, confident that Pierre Germain received 22 91.8 percent of Black voters votes in 2013? 23 A. Given the EI result and its 24 standard error, that would indicate a 25 relative tight confidence interval, but I am</p>	Page 83	<p>1 Cole 2 Q. So you used the same sort of 3 data for the 2013 EI estimate that you used 4 for the other years, correct? 5 A. Correct. 6 Q. But you are not confident in 7 your EI estimates for the 2013 election; is 8 that right? 9 A. That's right. 10 Q. Before moving on, I had a 11 question about methodology. 12 In this table you report 13 "Percentage of Latino voters voting for 14 candidate, EI," "Percentage non-Hispanic 15 Black Voters" and "Percentage Non-Hispanic 16 White Voters," correct? 17 A. Yes. 18 Q. What about other racial 19 categories in the district, do they figure 20 into your analysis? 21 A. Each set of racial data is run 22 separately; so that Latinos versus everybody 23 else, Blacks versus everybody else, Whites 24 versus everybody else. So the vote totals 25 include Asians.</p>	Page 85

<p>1 Cole</p> <p>2 Q. So if I were to add up the</p> <p>3 percentage -- if I were to turn your</p> <p>4 percentage of Latino voters into real</p> <p>5 numbers and the percentage of Black voters</p> <p>6 into real numbers and the percentage of</p> <p>7 White voters into real numbers, they would</p> <p>8 not add up to the total vote count in the</p> <p>9 last column?</p> <p>10 A. That's right.</p> <p>11 Q. Let's turn to page 28 of your</p> <p>12 report. Paragraph 64 has an underlined</p> <p>13 sentence that says, "Supplemental Evidence</p> <p>14 Regarding Circumstances of the 2013 Board</p> <p>15 Contests." Do you see that?</p> <p>16 A. I do.</p> <p>17 Q. What is "supplemental evidence"?</p> <p>18 A. This is evidence that I</p> <p>19 collected to give factual context to the</p> <p>20 racial bloc voting estimates.</p> <p>21 Q. Is there some recognized method</p> <p>22 of collecting and analyzing supplemental</p> <p>23 evidence that I could find in the literature</p> <p>24 around ecological inference analysis?</p> <p>25 A. Not necessarily an ecological</p>	Page 86	<p>1 Cole</p> <p>2 NYSED, N-Y-S-E-D, the NYSED website.</p> <p>3 Q. Why is the racial makeup of the</p> <p>4 schools relevant evidence with respect to</p> <p>5 the economic -- ecological inference</p> <p>6 analysis of the 2013 elections?</p> <p>7 A. There are three kinds of</p> <p>8 quantitative analyses that I did;</p> <p>9 correlational, ecological inference and</p> <p>10 homogenous precinct analysis. From those</p> <p>11 three sets of quantitative analyses, I</p> <p>12 generated racial bloc voting -- racially</p> <p>13 polarized voting estimates.</p> <p>14 Q. Is the racial makeup of the</p> <p>15 schools in the public school district</p> <p>16 relevant to your ecological inference</p> <p>17 analysis?</p> <p>18 A. I wasn't finished answering.</p> <p>19 Q. Okay.</p> <p>20 A. When you posed the question to</p> <p>21 me, all you cited was EI, and I just want to</p> <p>22 clarify that you mentioned ecological</p> <p>23 inference. There are other quantitative</p> <p>24 measures that I used; the correlational, EI</p> <p>25 and HPA.</p>	Page 88
<p>1 Cole</p> <p>2 inference analysis, but in terms of mixed</p> <p>3 method methodologies, yes.</p> <p>4 Q. Did you follow some</p> <p>5 professionally recognized methodology in</p> <p>6 analyzing and collecting supplemental</p> <p>7 evidence regarding the 2013 board contests?</p> <p>8 A. I did.</p> <p>9 Q. What method was that?</p> <p>10 A. In collecting such evidence you</p> <p>11 want to use a representative sample of data</p> <p>12 and in this case in and around the</p> <p>13 particular contest at hand.</p> <p>14 Q. Do you believe that you had a</p> <p>15 representative sample of supplemental</p> <p>16 evidence regarding the 2013 election?</p> <p>17 A. With respect to the news</p> <p>18 articles, I do.</p> <p>19 Q. Do you not with respect to other</p> <p>20 types of supplemental evidence?</p> <p>21 A. Well, the other kind of</p> <p>22 supplemental evidence that I collected here</p> <p>23 deals with the New York State educational</p> <p>24 data on racial makeup of the schools, and</p> <p>25 that's just direct information from the</p>	Page 87	<p>1 Cole</p> <p>2 Q. Right.</p> <p>3 I'm interested in EI because you</p> <p>4 testified you're not confident in your</p> <p>5 estimates using EI for the 2013 election.</p> <p>6 The question is: Is the racial</p> <p>7 makeup of the district's public school</p> <p>8 relative to ecological inference analysis of</p> <p>9 the 2013 election?</p> <p>10 A. I think the two sets of</p> <p>11 information informed one another. I think</p> <p>12 it's -- so the supplemental information</p> <p>13 generates a factual context, the environment</p> <p>14 in which people are voting.</p> <p>15 You have a situation where</p> <p>16 public school advocates support a slate of</p> <p>17 candidates whose agenda is one that is</p> <p>18 largely favorable to public schools. My</p> <p>19 analyses indicate that those candidates</p> <p>20 always lose.</p> <p>21 You have another dimension to</p> <p>22 the community where slates of candidates</p> <p>23 supported by private school interests</p> <p>24 support them. They invariably win.</p> <p>25 This is in a setting where</p>	Page 89

1 Cole 2 public school advocates are invested in 3 schools that are virtually all minority, 4 you've got private school advocates 5 promoting a slate of candidates, and 6 that private school interests lies in 7 schools that are virtually all White. 8 I'm not finished. And I believe 9 that that kind of information is important 10 for the court to consider.	1 Cole 2 people? 3 A. Not necessarily just them, but 4 much of the material I see is from them. 5 Q. So is that right, mainly 6 Orthodox and Hasidic Jewish people? 7 A. I'd probably go along with that. 8 Q. When you say "private school 9 community," you mean mainly Orthodox and 10 Hasidic Jewish people? 11 A. I'd go along with that.
12 Q. When you say "public school 13 advocates," is that the same as a phrase you 14 also use in your report "public school 15 community"; do you recall that phrase? 16 A. Yes. 17 Q. Is everyone in the public school 18 community from your understanding Black and 19 Latino? 20 A. No.	12 MR. GROSSMAN: Off the record. (Discussion off the record.) 13 Q. Turning back to the 2013 14 election results reported on the bottom of 15 page 40 of your report, let's walk through 16 these. 17 Starting with the race for the 18 seat of Moses Friedman in 2013, in the 19 column "Percent Latino voters voting for 20 candidate, EI," you are not confident in 21 your estimate that 99.6 percent of Latino 22 voters voted for Margaret Tuck, correct? 23 A. That's not correct. 24 Q. Are you confident in your
21 Q. Are there White people that you 22 would say qualify as public school advocates in your understanding? 23 A. Yes. 24 Q. Does being a public school 25 advocate say anything about whether a person	
1 Cole 2 is Black or White? 3 A. Not necessarily. 4 Q. When you say "private school 5 interests," is that the same as the phrase 6 "private school community" that you also use 7 in your report? 8 A. It's similar. 9 Q. When you say "private school 10 community," you mean Orthodox and Hasidic 11 Jews in East Ramapo? 12 A. Not necessarily. 13 Q. Mainly Orthodox and Hasidic 14 Jews? 15 A. Much of the materials reviewed 16 were spoken or written by folks of the 17 Jewish faith. 18 Q. By "private school community," 19 do you mean mainly Orthodox and Hasidic 20 Jewish people? 21 A. The materials I found are 22 generated largely by them, yes. 23 Q. Just so I understand, when you 24 refer to the "private school community," you 25 mean mainly Orthodox and Hasidic Jewish	1 Cole 2 estimate that 99.6 percent of the Latino 3 voters voted for Margaret Tuck in 2013? 4 A. Yes. 5 Q. But you are not confident in 6 your estimate that 29.3 percent of Black 7 voters voted for Margaret Tuck; is that 8 correct? 9 A. That's correct. 10 Q. Why are you confident in one 11 estimate, but not the other? 12 A. For one, the Latino information, 13 when you compare these results with the 14 correlation analysis, they're consistent. 15 When you compare the estimates for the Black 16 voters with the correlational evidence, 17 they're not consistent. 18 Q. Let's come back to that. I need 19 your answers for the rest of these. 20 Are you confident in your 21 estimate that 30.5 percent of non-Hispanic 22 White voters voted for Margaret Tuck? 23 A. I am. 24 Q. So with respect to this race, is 25 the only estimate that you are not confident
1 Cole 2 is Black or White? 3 A. Not necessarily. 4 Q. When you say "private school 5 interests," is that the same as the phrase 6 "private school community" that you also use 7 in your report? 8 A. It's similar. 9 Q. When you say "private school 10 community," you mean Orthodox and Hasidic 11 Jews in East Ramapo? 12 A. Not necessarily. 13 Q. Mainly Orthodox and Hasidic 14 Jews? 15 A. Much of the materials reviewed 16 were spoken or written by folks of the 17 Jewish faith. 18 Q. By "private school community," 19 do you mean mainly Orthodox and Hasidic 20 Jewish people? 21 A. The materials I found are 22 generated largely by them, yes. 23 Q. Just so I understand, when you 24 refer to the "private school community," you 25 mean mainly Orthodox and Hasidic Jewish	1 Cole 2 estimate that 99.6 percent of the Latino 3 voters voted for Margaret Tuck in 2013? 4 A. Yes. 5 Q. But you are not confident in 6 your estimate that 29.3 percent of Black 7 voters voted for Margaret Tuck; is that 8 correct? 9 A. That's correct. 10 Q. Why are you confident in one 11 estimate, but not the other? 12 A. For one, the Latino information, 13 when you compare these results with the 14 correlation analysis, they're consistent. 15 When you compare the estimates for the Black 16 voters with the correlational evidence, 17 they're not consistent. 18 Q. Let's come back to that. I need 19 your answers for the rest of these. 20 Are you confident in your 21 estimate that 30.5 percent of non-Hispanic 22 White voters voted for Margaret Tuck? 23 A. I am. 24 Q. So with respect to this race, is 25 the only estimate that you are not confident

<p style="text-align: right;">Page 94</p> <p>1 Cole 2 in your estimate of the percentage of 3 non-Hispanic Black voters? 4 A. That's correct. 5 Q. Let's look at the seat of Nathan 6 Losman, are you confident in your estimate 7 that Eustache Clerveaux received 99.5 8 percent of voters voting -- of Latino 9 voters? 10 A. Yes. 11 Q. And are you confident in your 12 estimate that 30.2 percent of White voters 13 voted for Eustache Clerveaux? 14 A. Yes. 15 Q. Are you confident in your 16 estimate that 7.6 percent of Black voters 17 voted for Eustache Clerveaux? 18 A. No. 19 Q. Looking at the seat of Bernard 20 Charles, are you confident in your estimate 21 that 99.4 percent of Latino voters voted for 22 Robert Forrest? 23 A. Yes. 24 Q. Are you confident in your 25 estimate that 31.6 percent of non-Hispanic</p>	<p style="text-align: right;">Page 96</p> <p>1 Cole 2 for Black voters are not consistent with the 3 correlation analyses. 4 Q. Are you saying that the 5 correlation analysis is more reliable than 6 the ecological inference analysis? 7 A. I'm not. 8 Q. Why would you -- strike that. 9 Do you give more weight to the 10 correlation analysis than to the ecological 11 inference analysis? 12 A. Not necessarily. 13 Q. Are you giving more weight to 14 the correlation analysis in your estimates 15 for the percentage of Black voters than you 16 are giving it in other categories? 17 A. Not necessarily more weight. 18 Q. Not necessarily more weight. 19 Are you crediting the 20 correlation analysis more than the 21 ecological inference analysis for your 22 estimates of percentage of Black voters 23 voting for the candidates in 2013? 24 A. Not necessarily. 25 Q. What do you mean by "not</p>
<p style="text-align: right;">Page 95</p> <p>1 Cole 2 White voters voted for Robert Forrest? 3 A. Yes. 4 Q. Are you confident in your 5 estimate that 10.6 percent of non-Hispanic 6 Black voters voted for Robert Forrest? 7 A. No. 8 Q. Did you do anything different 9 methodically in estimating the percentage of 10 Black voter support for candidates in May 11 21, 2013? 12 MR. GROSSMAN: Objection. 13 A. Different than what? 14 Q. Different than the methodology 15 you used for the percent of Latino voters? 16 A. No, the same methods. 17 Q. The same sorts of data? 18 A. The same sorts of data. 19 Q. Why are you confident in your 20 estimates for percentage of Latino voter 21 support and not percentage for non-Hispanic 22 Black voter support? 23 A. Those estimates are consistent 24 with the correlational analysis, the 25 estimates for the Latino. The EI estimates</p>	<p style="text-align: right;">Page 97</p> <p>1 Cole 2 necessarily"? 3 A. There is no formal weighting 4 process. There is a discrepancy between the 5 two, which would lead me to have less 6 confidence in the disparate Black findings. 7 Q. Why does the correlation 8 analysis that you performed influence your 9 confidence in your estimates generated by 10 ecological inference? 11 A. Gary King himself suggests that 12 when you have results that don't necessarily 13 fit an established pattern that you need to 14 look at other sources of information to 15 establish confidence in the EI results. And 16 he specifically suggests going to 17 supplemental evidence, such as journalistic 18 accounts, so I have journalistic accounts, I 19 have correlation analyses, I compared the 20 White EI to the HPA. They're consistent. 21 Q. So the difference between the 22 percentage of Latino voters voting for a 23 candidate and Black voters voting for a 24 candidate is that the percentages you 25 estimated for Black voters did not fit your</p>

<p>1 Cole 2 expected pattern? 3 A. Not an expected pattern. A 4 pattern of the other data before us. I 5 didn't have expectations, just established 6 patterns. 7 Q. Is it possible for the 8 correlation analysis and the ecological 9 inference analysis for the Black voters 10 voting for the candidate to both be correct? 11 A. It's possible. 12 Q. Why do you assume then that the 13 percentage of Black voters voting for a 14 candidate that you generated using 15 ecological inference is incorrect? 16 A. I didn't say incorrect. I said 17 I have less confidence in them, and I -- in 18 terms of the quantitative results, I find 19 them basically in the EI inconclusive. I 20 don't have an answer for you. 21 Q. In paragraph 28 of your report 22 in describing correlation analysis you say 23 that "if there are only a small number of 24 precincts, no matter how strong the actual 25 racial polarization, one may not be able to</p>	Page 98	<p>1 Cole 2 A. Do you want to repeat that? 3 Q. Yes. 4 In 2013 for that particular 5 analysis, were ten precincts sufficient to 6 obtain a high level of statistical 7 significance in your measurement of the 8 degree of polarization? 9 A. That question is illogical to 10 me. 11 The point I'm making in the 12 report is that with a sample size of ten, 13 you don't necessarily have to rely on a high 14 level of statistical significance to rely on 15 it. 16 Q. Right. 17 I'm asking whether you were able 18 to obtain a high level of statistical 19 significance. 20 MR. GROSSMAN: Objection. 21 A. There was a -- for 2013 there 22 were -- there was statistical significance 23 for Latinos in the correlation, there were 24 statistical significance for the Whites, but 25 not for the Blacks, but -- I'm sorry, I've</p>	Page 100
<p>1 Cole 2 obtain a high level of statistical 3 significance in the measurement of the 4 degree of polarization." Do you see that? 5 A. I do. 6 Q. Are ten precincts sufficient to 7 obtain a high level of statistical 8 significance in the measurement of the 9 degree of polarization using correlation 10 analysis? 11 A. It depends. 12 Q. In this case? 13 A. It depends upon the distribution 14 of the data. 15 My point here was that with a 16 sample size of ten, you can generate a 17 strong correlation coefficient, a big 18 effect, but not necessarily be statistically 19 significant. It's just a function of the 20 sample size. 21 Q. In this case, the specific 22 reference to May 21, 2013, were ten 23 precincts sufficient to obtain a high level 24 of statistical significance in the 25 measurement of the degree of polarization?</p>	Page 99	<p>1 Cole 2 finished my answer. 3 Q. Okay. In your answer, when you 4 referred to the statistical significance for 5 Latino voters and the White voters, was 6 there a high level of statistical 7 significance? 8 A. There is no necessary absolute 9 threshold as to what a high level of 10 statistical significance is. 11 Q. In your expert opinion, did you 12 obtain a high level of statistical 13 significance? 14 MR. GROSSMAN: Objection. 15 A. I don't have an absolute 16 threshold as to what a high level of 17 statistical significance is. I would say 18 that a value of less than .001 is a greater 19 degree of significance than .021. 20 MR. LEVINE: Let's take that 21 break. 22 (Luncheon recess: 1:30 p.m.) 23 24 25</p>	Page 101

<p style="text-align: right;">Page 102</p> <p>1 Cole 2 A F T E R N O O N S E S S I O N 3 (Time noted: 2:13 p.m.) 4 S T E V E N P C O L E, Ph D, resumed 5 and testified as follows: 6 EXAMINATION BY (CONT'D.) 7 MR. LEVINE: 8 MR. LEVINE: Could you read back 9 for the witness the last question and 10 answer so we can pick up where we left 11 off? 12 (Record read.) 13 Q. Turning to the document marked 14 as Cole Exhibit 2, your expert report, turn 15 to page 43 at the bottom of the page. This 16 is a "Summary of the Correlation Analyses 17 for the May 21, 2013 Elections," correct? 18 A. Correct. 19 Q. Did you obtain statistical 20 significance for the percentage of 21 non-Hispanic Black voters voting for 22 candidate for the seat of Moses Friedman? 23 A. No. 24 Q. For the seat of Nathan Losman, 25 did you obtain statistical significance in</p>	<p style="text-align: right;">Page 104</p> <p>1 Cole 2 follow along, that sentence says, "For the 3 correlation analysis, a single regression is 4 preferred where the researcher seeks the 5 association between the racial composition 6 of the precincts and the percentage of the 7 votes cast for candidates." Do you see 8 that? 9 A. I do. 10 Q. You have a footnote to Footnote 11 17. Do you see that there? 12 A. I do. 13 Q. And you're citing for that 14 proposition to an article by James Loewen 15 and Bernard Grofman, "Recent Developments in 16 Methods Used in Voting Right Litigation," 17 Urban Lawyer 1989, correct? 18 A. Correct. 19 Q. Did you perform a single 20 regression analysis like you have described 21 here? 22 A. Let me clarify what I did. The 23 same variables are used to calculate a 24 correlation coefficient that are used in the 25 setup for the regression, and you get</p>
<p style="text-align: right;">Page 103</p> <p>1 Cole 2 the estimate for the percentage of 3 non-Hispanic Black voters voting for 4 candidate? 5 A. Could you repeat that? 6 Q. Sure. 7 The same question for seat of 8 Moses Friedman that we asked, the same 9 question for the seat of Nathan Losman. Did 10 you achieve statistical significance for 11 your estimate for the percentage of 12 non-Hispanic Black voters voting for 13 candidate? 14 A. For the seat of Nathan Losman, 15 no. 16 Q. The same question for the seat 17 of Bernard Charles on page 44, did you 18 obtain statistical significance for the 19 estimate for the percentage of non-Hispanic 20 Black voters voting for candidate? 21 A. No. 22 Q. Let's turn to page 11 of your 23 report, the bottom of the page, the last 24 sentence at the bottom of page that runs to 25 the top of page 12. Just so everybody can</p>	<p style="text-align: right;">Page 105</p> <p>1 Cole 2 various results from the -- from that kind 3 of analysis. One is the correlation which 4 is the association between the two 5 variables. You can also use the regression 6 to get estimates of racial bloc voting. I 7 did not do that. What I used the single 8 regression for was to get the correlation 9 coefficients. 10 Q. Why? 11 A. To answer the question in 12 general, is there an association between 13 racial composition of the precincts and 14 voter outcome. 15 Q. What is the distinction? I'm 16 not sure I understand the distinction that 17 you've drawn. 18 A. Correlation between the racial 19 composition of the precincts and the 20 outcome, it's a measurement of association. 21 Are they associated, those two measures. If 22 one increases, does the other increase. You 23 would use the results of the regression as a 24 more of a prediction. Does -- and the 25 regression is more of a form Y equals Ax</p>

<p>1 Cole 2 plus B, the equation for a straight line, 3 where you would get -- you could figure out 4 White crossover voting for that and an 5 estimate of Black cohesion.</p> <p>6 Q. So that makes sense. 7 Is it possible to do one without 8 doing the other, right; don't you have to do 9 the first step to do the regression?</p> <p>10 A. You could just run the 11 correlation all by itself.</p> <p>12 Q. But to do the regression, you 13 have to run the correlation, right, because 14 you have to regress something?</p> <p>15 A. You could report those 16 regression estimates without reporting the 17 correlation. I mean, they can be done 18 separately.</p> <p>19 Q. Maybe they could be reported 20 separately, but can you actually do the 21 analysis without -- can you actually do the 22 regression analysis without doing the 23 correlation analysis?</p> <p>24 A. Yes.</p> <p>25 Q. How do you do that?</p>	<p>Page 106</p> <p>1 Cole 2 in Footnote 17? 3 A. I have. It's been a while, but 4 I have.</p> <p>5 MR. LEVINE: Let's mark the 6 article as Cole Exhibit 3. 7 (Cole Exhibit 3, article cited 8 in Footnote 17 of expert report, 9 marked for identification, as of this 10 date.)</p> <p>11 Q. So I can represent to you that 12 this is the copy of the article that was 13 provided to us by plaintiffs' counsel, and I 14 believe it's the same as the article cited 15 in Footnote 17.</p> <p>16 Take a look at what is marked 17 page 595 in the article at the top of the 18 page.</p> <p>19 A. I'm on page 595.</p> <p>20 Q. At the bottom of this page there 21 is a paragraph, and just so everybody can 22 follow along, I'll just read a couple of 23 sentences because I want to ask you a 24 question about them. Starting with the word 25 "however" in the middle the paragraph, do</p>
<p>1 Cole</p> <p>2 A. The same data -- if you're -- 3 you need the same data to run both, let's 4 put it that way.</p> <p>5 Q. What you are saying is that you 6 could just run different programs and it 7 will generate a different report?</p> <p>8 A. Yes.</p> <p>9 Q. On page 11, same sentence, you 10 say, "a single regression is preferred where 11 the researcher seeks the association between 12 the racial composition of the precincts and 13 the percentage of the votes cast for a 14 candidate." What do you mean by 15 "preferred"?</p> <p>16 A. So the single regression is 17 preferred where you use, as an example, 18 percent Black CVAP as the predictor variable 19 and percent of the vote cast for candidate 20 A. There are other regressions that could 21 be used to generate correlations. I 22 preferred what is called this Goodman's 23 single regression. That's what I meant by 24 that.</p> <p>25 Q. Have you read the article cited</p>	<p>Page 107</p> <p>1 Cole 2 you see where I am?</p> <p>3 A. I do.</p> <p>4 Q. "However, voting rights cases 5 usually involve seeing if there are 6 important differences between White and 7 Black RBV, not calculating specific and 8 exact estimates of the amount of RBV of each 9 group, thus errors introduced by ordinary 10 single equation regression are usually of 11 modest legal importance because regression 12 results usually show major differences 13 between White support for White candidates 14 and Black support for White candidate," and 15 then there is a footnote.</p> <p>16 Have you followed along with me 17 so far?</p> <p>18 A. Yes.</p> <p>19 Q. Did you perform a single 20 equation regression of the type described in 21 the sentence I just read in this case?</p> <p>22 A. I'm just going to make sure. 23 I'm going to look at the graph on page 595. 24 And for the X-axis, it's percent of White 25 registered, and on the Y-axis or ordinate,</p>

<p>1 Cole</p> <p>2 I would like to take each of</p> <p>3 these in turn starting with the last.</p> <p>4 So who is Ms. Hatton?</p> <p>5 A. Ms. Hatton -- I'm going to go</p> <p>6 further back into the report -- she's a --</p> <p>7 I'm looking at my report, page 29,</p> <p>8 Ms. Hatton, who is a public school, quote,</p> <p>9 parent education activist in East Ramapo.</p> <p>10 Q. Did you speak with Ms. Hatton?</p> <p>11 A. No.</p> <p>12 Q. Do you know Ms. Hatton?</p> <p>13 A. No.</p> <p>14 Q. Is Ms. Hatton Black?</p> <p>15 A. My understanding is that she is</p> <p>16 not.</p> <p>17 Q. Is Ms. Hatton Latino?</p> <p>18 A. My understanding is that she is</p> <p>19 not.</p> <p>20 Q. Why is Ms. Hatton in your view a</p> <p>21 credible source of information about Black</p> <p>22 and Latino voter preference?</p> <p>23 A. Well, the school board</p> <p>24 identified three official newspaper sources</p> <p>25 and the Rockland Times was one of them, and</p>	<p>Page 118</p>	<p>1 Cole</p> <p>2 reliable evidence about Black and minority</p> <p>3 voter preference unless you have reason to</p> <p>4 disbelieve them?</p> <p>5 A. This is a letter published in a</p> <p>6 paper that the public can read and I also</p> <p>7 included a letter from the Southeast</p> <p>8 Taxpayers Association, Ms. Kalman Weber,</p> <p>9 K-A-L-M-A-N.</p> <p>10 Q. Is that the article you're</p> <p>11 referencing in Footnote 60?</p> <p>12 A. Right.</p> <p>13 Q. Yes.</p> <p>14 Footnote 60 refers to an article</p> <p>15 from October 18, 2015?</p> <p>16 A. Right. I'm sorry. What I meant</p> <p>17 to say is in relation to 2013, I included</p> <p>18 the letter by Yehuda Weissmandl, president</p> <p>19 of the board, who countered Ms. Hatton.</p> <p>20 Q. Is Yehuda Weissmandl a credible</p> <p>21 source of evidence about Black and Latino</p> <p>22 voter preferences in East Ramapo?</p> <p>23 A. He's the president of the school</p> <p>24 board, and what these supplemental pieces of</p> <p>25 information demonstrate as to the subsequent</p>	<p>Page 120</p>
<p>1 Cole</p> <p>2 she published this letter to the editor.</p> <p>3 Q. What makes her letter to the</p> <p>4 editor a credible source of evidence about</p> <p>5 Black and Latino voter preferences?</p> <p>6 A. This is part of an overall</p> <p>7 search of articles concerning the 2013</p> <p>8 contest. This was a -- I believe this was</p> <p>9 an article that was suggested by counsel as</p> <p>10 one I should at least look at.</p> <p>11 Q. Did counsel tell you to rely on</p> <p>12 it?</p> <p>13 A. No. It's up to me to rely on</p> <p>14 it.</p> <p>15 Q. So why did you find it to be a</p> <p>16 reliable source of evidence about Black and</p> <p>17 Latino voter preferences in the 2013</p> <p>18 election?</p> <p>19 A. I had no reason not to consider</p> <p>20 her a reliable source. This is a letter to</p> <p>21 the editor that the Rockland Times felt that</p> <p>22 it could -- that it could publish in and</p> <p>23 around the election.</p> <p>24 Q. So letters to the editor to the</p> <p>25 Rockland County Times are a source of</p>	<p>Page 119</p>	<p>1 Cole</p> <p>2 ones is that they're just evidence of two</p> <p>3 separate slates, two separates groups of</p> <p>4 candidates. This is not information that is</p> <p>5 in isolation. You'll see similar kinds of</p> <p>6 reports from other community members. So</p> <p>7 this was...</p> <p>8 Q. So how does this evidence, the</p> <p>9 letter to the editor from Ms. Hatton and</p> <p>10 another letter to the editor from</p> <p>11 Mr. Weissmandl, how does that contribute to</p> <p>12 your conclusion that the supplemental</p> <p>13 evidence outweighs your EI estimate for the</p> <p>14 2013 board contests, for EI estimates?</p> <p>15 (Record read.)</p> <p>16 A. Those are your words. I didn't</p> <p>17 say they outweigh.</p> <p>18 Q. Actually, that's not true. In</p> <p>19 paragraph 9 in the last sentence you said,</p> <p>20 "In 2013 all six candidates were people of</p> <p>21 color, but the weight of evidence indicates</p> <p>22 that the winning candidates, who were</p> <p>23 endorsed by the private school slate and the</p> <p>24 preferred candidates of White voters, were</p> <p>25 not minority preferred candidates." Those</p>	<p>Page 121</p>

<p>1 Cole 2 are your words. 3 A. Where are you reading? 4 Q. Paragraph 9, the last sentence. 5 A. Paragraph 9. 6 MR. GROSSMAN: It's on page 3. 7 A. I wrote, "In 2013 all six 8 candidates were people of color, but the 9 weight of evidence indicates that the 10 winning candidates, who were endorsed by the 11 private school and preferred candidates of 12 White voters, were not minority preferred 13 candidates." 14 That does not say that the 15 supplement evidence outweighs EI. 16 Q. What is the weight of evidence 17 that you refer to in paragraph 9? 18 A. Correlational evidence, 19 homogenous precinct analysis, evidence and 20 supplemental evidence. 21 Q. Okay. So how does the 22 supplemental evidence that we just discussed 23 involving a letter from Ms. Hatton, a letter 24 from Mr. Weissmandl contribute to your 25 conclusion that the weight of evidence is</p>	Page 122	<p>1 Cole 2 Q. Is that right? 3 A. Could you repeat the question? 4 Q. Yes. 5 The results of your correlation 6 analysis for the Black vote in 2013 and the 7 estimate that you generated for Black vote 8 in 2013 are not mutually exclusive; is that 9 right? 10 A. You're going to have to explain 11 what you mean by "mutually exclusive." 12 Q. What I mean is that your EI 13 analysis can be reliable and your 14 correlation analysis also can be reliable, 15 they're not exclusive. 16 A. It's possible that they're both 17 reliable, yes. 18 Q. Okay. And the supplemental 19 evidence that you're relying on consists of 20 your decision to credit Ms. Hatton's 21 observations about Black and Latino voter 22 preferences and another factor, which we 23 have not discussed yet, publicized 24 endorsements of Save Our Schools and SERTA. 25 Why are the publicized</p>	Page 124
<p>1 Cole 2 against your EI estimate? 3 A. The racially polarized voting 4 estimates from 2015 and 2017 indicate 5 racially polarized voting, a divided 6 electorate, correlational evidence suggests 7 that as the percentage increase, for 8 example, of Blacks in precincts increases, 9 the support for particular candidates 10 increase. The Black preferred candidates 11 and Latino preferred candidates were 12 supported by public school advocates and 13 they invariably lost. That's how I believe 14 this kind of supplemental information can 15 provide factual context to the quantitative 16 information. 17 Q. So as I understand it, you 18 testified before, that your correlation 19 analysis for 2013, particularly with respect 20 to the Black vote, can be reliable and also 21 your EI estimate for 2013 for the Black vote 22 can be reliable, right, they're not 23 necessarily mutually exclusive; is that 24 right? 25 MR. GROSSMAN: Objection.</p>	Page 123	<p>1 Cole 2 endorsements of Save Our Schools and SERTA 3 so significant in terms of supplemental 4 evidence? 5 A. Where are you reading from? 6 Q. Paragraph 69, page 31. 7 A. These sources cited in 69 -- 8 1969 (sic) are further examples of community 9 support for one slate or another, and the -- 10 once again, the public school sided 11 endorsements invariably are connected with 12 candidates who run together, who have been 13 preferred candidates, 2015 to '17, who 14 always lose, and the opposite is true of the 15 private schools. 16 Q. Just so I understand, Save Our 17 Schools and SERTA as organizations, they're 18 political organizations, not racial 19 organizations, right? 20 A. Correct. 21 Q. So doesn't that mean that you're 22 conflating endorsements by political 23 organizations with support of racial groups? 24 A. The issue at hand in these kinds 25 of analyses is the preferred candidate. The</p>	Page 125

<p style="text-align: right;">Page 130</p> <p>1 Cole 2 looking at the EI evidence by itself, it's 3 polarized with respect to Latinos and Whites 4 and not between Blacks and Whites. 5 Q. Also it would be polarized 6 between Blacks and Latinos, wouldn't it? 7 A. It would. 8 Q. Turn to page 39, the May 19, 9 2015 election at the bottom of the page. I 10 would like to ask you some questions about 11 these EI results. 12 Take a look at the race for the 13 seat of Jacob Lefkowitz. This is a 14 three-way head-to-head race between or among 15 Jacob Lefkowitz, Sabrina Charles Pierre and 16 Alan Keith Jones, correct? 17 A. Correct. 18 Q. Looking at the "Percentage of 19 Latino Voters Voting for Candidate, EI" 20 column, you calculated an estimate of 0.7 21 percent for the percentage of Latino voters 22 who voted for Jacob Lefkowitz, correct? 23 A. Correct. 24 Q. You calculated 64.2 percent of 25 the Latino voters who voted for Sabrina</p>	<p style="text-align: right;">Page 132</p> <p>1 Cole 2 get the remainder? 3 A. Not necessarily. 4 Q. Why not? 5 A. These results are generated 6 independently. This is not like a 7 regression where you could subtract a result 8 from one and that would be your estimate. 9 Given the way that King is devised, these 10 numbers don't necessarily add up to 100 11 percent. The Jones estimate is based on 468 12 votes; whereas, Charles Pierre is based on 13 4,600 votes, and Lefkowitz 3,000 -- 6,380. 14 Q. So if you were to take Alan 15 Keith Jones out of the equation because 16 you're independently evaluating them, how 17 can it be that Sabrina Charles Pierre got 18 64.2 percent of the vote and Jacob Lefkowitz 19 got 0.7 percent of the vote; aren't we 20 missing a fairly large percent of the vote 21 in that estimate? 22 A. These percentages are 23 percentages of Latino voters. 24 Q. Right. 25 What happened to the other</p>
<p style="text-align: right;">Page 131</p> <p>1 Cole 2 Charles Pierre, correct? 3 A. Correct. 4 Q. For Alan Keith Jones there is an 5 asterisk. At the bottom of the page the 6 asterisk says, "Indeterminate." What does 7 that mean? 8 A. It means if the EI program 9 doesn't have enough information to calculate 10 an estimate, it won't, and that's what 11 happened here. 12 Q. Why would it not have enough 13 information? 14 A. Jones only got 468 votes. 15 That's why. 16 Q. So a low amount of votes is 17 significant to the EI analysis? 18 A. Well, if the algorithms can't -- 19 in general, indeterminate votes are likely 20 with smaller number of vote totals. 21 Q. How could it be that you were 22 able to calculate Sabrina Charles Pierre 23 received 64.2 percent, Jacob Lefkowitz got 24 .7 percent and then not be able to determine 25 what Alan Keith Jones got; wouldn't he just</p>	<p style="text-align: right;">Page 133</p> <p>1 Cole 2 30-something percent? 3 A. We don't know because EI wasn't 4 able to generate an estimate given the small 5 number of votes that Jones got. 6 Q. Well, but there were a large 7 number of votes for Jacob Lefkowitz, right? 8 A. Based on 6,380 votes. 9 Q. And there were a large number of 10 votes for Sabrina Charles Pierre, right? 11 A. 4,600. 12 Q. Are you confident in your 13 estimate of 64.2 percent of the Latino vote 14 for Sabrina Charles Pierre? 15 A. I am. 16 Q. Are you confident in your 17 estimate of 0.7 percent of the Latino vote 18 for Jacob Lefkowitz? 19 A. I am. 20 Q. How can you be confident in 21 those estimates if you can't say what 22 happened to the other 30 percent of the 23 Latino voters? 24 A. Because the vote -- the analysis 25 for Lefkowitz was done independently of what</p>

Page 142	Page 143	Page 144
<p>1 Cole</p> <p>2 contest with two candidates is the candidate</p> <p>3 who receives a majority of the Black votes.</p> <p>4 Determination of Black preferred candidates</p> <p>5 in head-to-head contests with more than two</p> <p>6 candidates needs to be established on an</p> <p>7 election-specific data basis, yet the level</p> <p>8 of support for a candidate can change given</p> <p>9 the total number of candidates; although</p> <p>10 receiving a majority of Black votes in</p> <p>11 contest with more than two candidates is not</p> <p>12 required for determination as a Black</p> <p>13 preferred candidate, receiving a majority of</p> <p>14 Black votes would be an indication of</p> <p>15 substantial support from Black voters."</p> <p>16 What do you mean that "receiving</p> <p>17 a majority of Black votes in contests with</p> <p>18 more than two candidate is not required for</p> <p>19 determination as a Black preferred</p> <p>20 candidate"?</p> <p>21 A. I'll give you an example. Let's</p> <p>22 say we have ten candidates and candidate --</p> <p>23 the one with the highest vote got 40 percent</p> <p>24 of the vote. Everybody else got five, four,</p> <p>25 small amounts of percentage of votes.</p>	<p>1 Cole</p> <p>2 percent of Latino voters voted for Natasha</p> <p>3 Morales, correct?</p> <p>4 A. Correct.</p> <p>5 Q. Are you confident in those</p> <p>6 estimates?</p> <p>7 A. I am.</p> <p>8 Q. The next column you estimated</p> <p>9 that 40 percent of Black voters voted for</p> <p>10 Yonah Rothman, correct?</p> <p>11 A. Correct.</p> <p>12 Q. And you estimated that 59.9</p> <p>13 percent of Black voters voted for Natasha</p> <p>14 Morales, correct?</p> <p>15 A. Correct.</p> <p>16 Q. Looking at the White voter</p> <p>17 column, you estimated that 72.1 percent of</p> <p>18 White voters voted for Yonah Rothman,</p> <p>19 correct?</p> <p>20 A. Correct.</p> <p>21 Q. And you estimated that 28.1</p> <p>22 percent of White voters voted for Natasha</p> <p>23 Morales, correct?</p> <p>24 A. Correct.</p> <p>25 Q. Are you confident in those</p>	<p>1 Cole</p> <p>2 estimates?</p> <p>3 A. I am.</p> <p>4 Q. Because these are point</p> <p>5 estimates, is it possible that the actual</p> <p>6 support of Black voters for Yonah Rothman</p> <p>7 could have been higher than 40 percent?</p> <p>8 A. It's possible.</p> <p>9 Q. Is it possible that the actual</p> <p>10 support of Black voters for Natasha Morales</p> <p>11 could have been lower than 59.9 percent?</p> <p>12 A. It's possible.</p> <p>13 Q. How likely is it?</p> <p>14 A. Given the standard errors that</p> <p>15 were generated with these analyses, I found</p> <p>16 it to be not likely.</p> <p>17 Q. Let's look at the seat of Eliah</p> <p>18 Solomon, the next one. Here we have another</p> <p>19 three-way race. You calculated that the</p> <p>20 percentage of Latino voters voting for</p> <p>21 candidate Juan Pablo Ramirez was 0.3</p> <p>22 percent; is that correct?</p> <p>23 A. Correct.</p> <p>24 Q. Are you confident in that</p> <p>25 estimate?</p>
<p>1 Cole</p> <p>2 On a case-by-case basis, you</p> <p>3 might conclude that the candidate with the</p> <p>4 40 percent was the preferred candidate, not</p> <p>5 necessarily requiring majority, if you've</p> <p>6 got more than two candidates. That's what I</p> <p>7 mean by that.</p> <p>8 Q. Do you have to change the way</p> <p>9 you do an ecological inference analysis to</p> <p>10 account for that possibility where you have</p> <p>11 three-way elections?</p> <p>12 A. Each candidate is analyzed</p> <p>13 separately.</p> <p>14 Q. So in the three-way elections in</p> <p>15 2015, nothing about the way you performed</p> <p>16 the ecological inference analysis changes?</p> <p>17 A. No.</p> <p>18 Q. Let's look at the seat of Yonah</p> <p>19 Rothman, page 39, bottom of the page. For</p> <p>20 the seat of Yonah Rothman, you estimated</p> <p>21 that 0.5 percent of Latino voters voting for</p> <p>22 the candidate -- only 0.5 percent of Latino</p> <p>23 voters voted for Yonah Rothman, correct?</p> <p>24 A. Correct.</p> <p>25 Q. And you estimated that 99.4</p>	<p>1 Cole</p> <p>2 estimates?</p> <p>3 A. I am.</p> <p>4 Q. Because these are point</p> <p>5 estimates, is it possible that the actual</p> <p>6 support of Black voters for Yonah Rothman</p> <p>7 could have been higher than 40 percent?</p> <p>8 A. It's possible.</p> <p>9 Q. Is it possible that the actual</p> <p>10 support of Black voters for Natasha Morales</p> <p>11 could have been lower than 59.9 percent?</p> <p>12 A. It's possible.</p> <p>13 Q. How likely is it?</p> <p>14 A. Given the standard errors that</p> <p>15 were generated with these analyses, I found</p> <p>16 it to be not likely.</p> <p>17 Q. Let's look at the seat of Eliah</p> <p>18 Solomon, the next one. Here we have another</p> <p>19 three-way race. You calculated that the</p> <p>20 percentage of Latino voters voting for</p> <p>21 candidate Juan Pablo Ramirez was 0.3</p> <p>22 percent; is that correct?</p> <p>23 A. Correct.</p> <p>24 Q. Are you confident in that</p> <p>25 estimate?</p>	<p>1 Cole</p> <p>2 percent of Latino voters voted for Natasha</p> <p>3 Morales, correct?</p> <p>4 A. Correct.</p> <p>5 Q. Are you confident in those</p> <p>6 estimates?</p> <p>7 A. I am.</p> <p>8 Q. The next column you estimated</p> <p>9 that 40 percent of Black voters voted for</p> <p>10 Yonah Rothman, correct?</p> <p>11 A. Correct.</p> <p>12 Q. And you estimated that 59.9</p> <p>13 percent of Black voters voted for Natasha</p> <p>14 Morales, correct?</p> <p>15 A. Correct.</p> <p>16 Q. Looking at the White voter</p> <p>17 column, you estimated that 72.1 percent of</p> <p>18 White voters voted for Yonah Rothman,</p> <p>19 correct?</p> <p>20 A. Correct.</p> <p>21 Q. And you estimated that 28.1</p> <p>22 percent of White voters voted for Natasha</p> <p>23 Morales, correct?</p> <p>24 A. Correct.</p> <p>25 Q. Are you confident in those</p>

<p style="text-align: right;">Page 146</p> <p>1 Cole 2 A. I am. 3 Q. You estimated that 99.4 percent 4 of Latino voters voted for Steve White, 5 correct? 6 A. Correct. 7 Q. Are you confident in that 8 estimate? 9 A. I am. 10 Q. And you have a candidate named 11 Yisroel Eisenbach for whom the Latino voter 12 support is indeterminate. Is that for the 13 same reason that you determined the Alan 14 Keith Jones Latino support was 15 indeterminate? 16 A. Yes. 17 Q. Does that indeterminate estimate 18 in any way affect the reliability of your 19 estimates for the other two candidates? 20 A. No. 21 Q. Does it strike you as 22 interesting that no or virtually no Latino 23 voters voted for Juan Pablo Ramirez and all 24 or nearly all Latino voters voted for Steve 25 White?</p>	<p style="text-align: right;">Page 148</p> <p>1 Cole 2 polarization? 3 A. The racial polarization would 4 still be whatever the preferred candidate is 5 of the particular racial group. I'm just 6 saying that in the situation where there are 7 multiple races, you have a different dynamic 8 than you would if there weren't multiple 9 races as the candidates. 10 Q. In the 2015 elections, looking 11 at the White voter column, you estimated 12 that 68 percent of White voters voted for 13 Juan Pablo Ramirez, correct? 14 A. Correct. 15 Q. Are you confident in that 16 estimate? 17 A. I am. 18 Q. And 25.2 percent of White voters 19 voted for Steve White; are you confident in 20 that estimate? 21 A. Yes. 22 Q. And 6 percent of White voters 23 voted for Yisroel Eisenbach; are you 24 confident in that estimate? 25 A. I am.</p>
<p style="text-align: right;">Page 147</p> <p>1 Cole 2 A. White was the candidate of 3 choice in the Latinos. It does not 4 necessarily have to be the same race as the 5 voters. 6 Q. Do you consider the race of the 7 candidate at all as a factor in your 8 conclusion when you determine whether or not 9 there is racial polarization? 10 A. I tend to find the interracial 11 contest to be more probative than a race 12 that is not interracial. It gives the 13 voters a choice, a racial choice. 14 Q. What do you mean by that, by "a 15 racial choice"?</p> <p>16 A. Meaning that a contest between 17 two Blacks and two Whites would not have a 18 racial choice; whereas, a contest between a 19 Black and White candidate, there is a racial 20 choice. 21 Q. In an interracial contest, are 22 you saying a White candidate receiving 23 support of White voters and a Black 24 candidate receiving the support of Black 25 voters would be indicative of racial</p>	<p style="text-align: right;">Page 149</p> <p>1 Cole 2 Q. Is it still relevant to your 3 analysis, because it's an interracial 4 contest, even if a majority of White voters 5 supported the Latino candidate and a 6 majority of Latino voters supported the 7 White candidate? 8 A. It's still racially polarized 9 voting. The preferred candidate of -- 10 regardless of the race of the candidate, the 11 preferred candidate of Latinos and Blacks 12 lost. 13 The cases -- the data that were 14 decided in Gingles were all cross-racial 15 cases. Over time analysts began also 16 analyzing White-White contests. So as I 17 said in the report, the preference for 18 elections to rely upon would be recent 19 indigenous contests that are interracial, 20 but the White-White can also inform about 21 racially polarized voting and Black-Black 22 and so on. 23 Q. Right. 24 So if interracial races are more 25 probative because they provide voters of</p>

<p style="text-align: right;">Page 150</p> <p>1 Cole 2 more racial choice, as you say, isn't it 3 probative when you have a race where White 4 voters overwhelming vote for a Latino 5 candidate and Latino voters overwhelming 6 vote for a White candidate? 7 A. I mean, it's an interesting 8 finding. 9 Q. Have you ever seen that in an 10 election before? 11 A. I've seen situations where White 12 preferred -- this similar pattern, yes. 13 Q. Even though voters are voting 14 for a candidate who is not of their own race 15 instead of voters voting for a candidate who 16 is of their own race, even though it's a 17 reversal, your opinion is that this race is 18 still indicative of racial polarization? 19 A. Yes. 20 Q. If that's right, why would 21 interracial contests be more probative than 22 same race contests? 23 A. In a contest involving just 24 Whites, for example, the whole outcome is -- 25 you know, is mitigated by the fact that</p>	<p style="text-align: right;">Page 152</p> <p>1 Cole 2 of Latino voters who voted for Kim Foskew 3 was 99.1 percent, correct? 4 A. Correct. 5 Q. And you calculated in the next 6 column that the percentage of Black voters 7 who voted for Bernard Charles was 1.4 8 percent, correct? 9 A. Correct. 10 Q. And you calculated that the 11 percentage of Black voters who voted for Kim 12 Foskew was 99.6 percent, correct? 13 A. Correct. 14 Q. Are you confident in all of 15 those estimates? 16 A. I am. 17 Q. You also calculated that the 18 percentage of White voters who supported 19 Bernard Charles was 77.2 percent, correct? 20 A. Correct. 21 Q. And that 23 percent of White 22 voters supported Kim Foskew, correct? 23 A. Correct. 24 Q. Bernard Charles is a Black man, 25 correct?</p>
<p style="text-align: right;">Page 151</p> <p>1 Cole 2 there is no racial choice. It's just a 3 different dynamic. 4 Q. But here there is a racial 5 choice, right? 6 A. The point is is that it's the 7 candidate of choice of the voters. That's 8 the real outcome you're looking at. 9 Q. That's interesting. Because 10 then that suggests that the candidate of 11 choice of the Latino voters is the candidate 12 of choice, not because of the race of the 13 candidate, but because of something else, 14 right? 15 A. It would indicate that they 16 are -- sure. Probably other factors, of 17 course. 18 Q. Let's take a look at 2016, the 19 top of the same page, page 39. The seat of 20 Bernard Charles, you calculated that the 21 percentage of Latino voters voting for 22 candidate Bernard Charles was 1.2 percent, 23 correct? 24 A. Correct. 25 Q. And you calculated the percent</p>	<p style="text-align: right;">Page 153</p> <p>1 Cole 2 A. Correct. 3 Q. And Kim Foskew is a White women, 4 correct? 5 A. Yes, yes. 6 Q. We have the same pattern, don't 7 we, where you have majority of White voters 8 who voted for a Black candidate and a 9 majority of Black voters who voted for a 10 White candidate, right? 11 A. Right. 12 Q. And like we just discussed, does 13 that suggest to you that if Kim Foskew is 14 the candidate of choice for Black voters, 15 it's not because of her race? 16 A. We don't know the reason. This 17 is just the result. I don't know if it has 18 to do with the race of the candidate. We 19 just know that Kim Foskew is the candidate 20 of choice of Blacks and Latinos. Don't know 21 the reason for it. 22 Q. And you know that Bernard 23 Charles was the candidate of choice for 24 White voters, correct? 25 A. Correct.</p>

<p style="text-align: right;">Page 154</p> <p>1 Cole 2 Q. So let's go down to the next 3 election for the seat of Pierre Germain. 4 You calculated that 77 percent of White 5 voters voted for Pierre Germain, right? 6 A. Right. 7 Q. Are you confident in that 8 result? 9 A. I am. 10 Q. And 23 percent of White voters 11 voted for Jean Fields, right? 12 A. Right. 13 Q. And Pierre Germain is a Black 14 man also, correct? 15 A. Yes. 16 Q. And Jean Fields is a Black 17 woman, right? 18 A. Right. 19 Q. So that suggests that 77.2 20 percent of Whites voted for Bernard Charles, 21 also 77 percent of Whites voted for Pierre 22 Germain; so that is a consistent amount of 23 White support for two Black candidates 24 correct? 25 A. That's correct. Your analysis</p>	<p style="text-align: right;">Page 156</p> <p>1 Cole 2 Q. And 24 percent of White voters 3 supporter Natasha Morales, right? 4 A. Right. 5 Q. And Yehuda Weissmandl is White? 6 A. Right. 7 Q. So as between the support for 8 Bernard Charles, Pierre Germain and Yehuda 9 Weissmandl, it's about the same, between 77 10 and 78 percent of White voters, correct? 11 A. Correct. 12 Q. And there is no variation 13 according to the race of the candidate, is 14 there? 15 A. That's correct. 16 Q. And that's true for their 17 opponents because in each of those 18 elections, the first your opponent was White 19 woman, the second your opponent was a Black 20 woman, and the third the opponent was a 21 Latino woman, and the amount of White 22 support remained the same across all three 23 of those candidates, true, correct? 24 A. Correct. 25 Q. Doesn't that suggest that if</p>
<p style="text-align: right;">Page 155</p> <p>1 Cole 2 excludes the fact that there were two Black 3 candidates -- 4 Q. Right. 5 A. -- for the seat of Pierre 6 Germain, so Whites had to vote for a Black 7 candidate. 8 Q. That's a useful point, because 9 23 percent of Whites, according your 10 estimates, voted for Kim Foskew, right? 11 A. Right. 12 Q. 23 percent of White voters voted 13 for Jean Fields, right? 14 A. Right. 15 Q. So even when presented with a 16 racial choice, as you put it, the same 17 percentages of White voters voted the same 18 way as between candidates, right? 19 A. Right. And Foskew and Fields 20 and Morales are all -- they all ran together 21 on the same slate, public school slate. 22 Q. Look at the seat of Yehuda 23 Weissmandl, 78 percent of White voters 24 supported Yehuda Weissmandl, right? 25 A. Right.</p>	<p style="text-align: right;">Page 157</p> <p>1 Cole 2 Yehuda Weissmandl is the preferred candidate 3 of White voters, it's not because of his 4 race? 5 A. These results to me suggest that 6 the three candidates that ran, who were 7 supported by private school interests, were 8 supported regardless of their race. 9 Q. Great. 10 And the three candidates who 11 ran, to use your term, with the support of 12 the public school community lost without 13 regard to their race, right? 14 A. That's correct. 15 Q. Let's take a look at 2017. For 16 the 2017 election, for the sake of 17 completeness, as you testified before, you 18 did the same thing methodologically for the 19 2017 election that you did for all the 20 previous, correct? 21 A. That's correct. 22 Q. And for the 2017 election you 23 did not generate confidence intervals, 24 correct? 25 A. Correct.</p>

<p style="text-align: right;">Page 158</p> <p>1 Cole 2 Q. And for the 2017 election you 3 did generate turnout estimates, but did not 4 report them, correct? 5 A. Correct. 6 MR. LEVINE: I'm going to mark 7 as Cole Exhibit 4 this document. 8 (Cole Exhibit 4, Annual Budget 9 and Trustee Vote for May 16, 2017 10 Official Results, marked for 11 identification, as of this date.) 12 Q. The exhibit you've just been 13 handed marked Cole 4 is a copy of the Annual 14 Budget and Trustee Vote for May 16, 2017 15 Official Results. 16 Have you seen this one before? 17 A. Yes. 18 Q. I think you know what I'm about 19 to ask you, which has to with the far column 20 on your table for the votes? 21 A. Right. 22 Q. And the official results, the 23 vote counts in the bottom row, do you see 24 those? 25 A. I do.</p>	<p style="text-align: right;">Page 160</p> <p>1 Cole 2 this election because of the work we've done 3 so far. 4 Are you confident in your EI 5 estimates for each of the estimates that you 6 generated for the 2017 election? 7 A. I am. 8 Q. And you did not consider any 9 supplemental evidence or other quantitative 10 analysis that caused you to question the 11 results that you got for the 2017 election? 12 MR. GROSSMAN: Objection. 13 Q. Is that right? 14 A. Could you repeat the question? 15 Q. Yes. 16 So none of the supplemental 17 evidence or other quantitative analysis that 18 you performed caused you to question your 19 results for the 2017 election, right? 20 A. Yes, the results were all 21 consistent. 22 Q. Looking at the first row, you 23 estimated that 36.5 percent of Black voters 24 voted for Mark Berkowitz and 68.8 percent of 25 Black voters voted for Alexandra Manigo,</p>
<p style="text-align: right;">Page 159</p> <p>1 Cole 2 Q. They don't match up? 3 A. That's correct. 4 Q. Is that a typo? 5 A. They are typos. When I first 6 got the 2017 data, I got unofficial results. 7 My analyses were run on official results, 8 and so that's why these numbers don't match. 9 These are the unofficial totals. But the 10 analyses were run on the official totals. 11 Q. So I'm clear, the analyses that 12 you ran to generate your EI estimates of 13 racial support for the candidates, you used 14 the official results? 15 A. That's correct. 16 Q. And the report just lists the 17 vote totals in error, that is just a typo 18 drawn from the unofficial results? 19 A. That's correct. 20 Q. So we can disregard that column 21 and there is no reason to believe that that 22 resulted in any error in your estimate? 23 A. That's right. 24 Q. Very good. 25 I think we can maybe short track</p>	<p style="text-align: right;">Page 161</p> <p>1 Cole 2 right? 3 A. Right. 4 Q. And for the seat of Harry 5 Grossman below, you estimated that 7.6 6 percent of Black voters voted for Harry 7 Grossman and 94.2 percent of Black voters 8 voted for Eric Goodwin, right? 9 A. Right. 10 Q. Did it strike you as anomalous 11 Mark Berkowitz appeared to do significantly 12 better with the Black vote than Harry 13 Grossman? 14 A. With the seat of Harry Grossman 15 you have a relatively high percentage of 16 Black voters supporting a Black candidate. 17 In a contest that is amongst Whites, a 18 smaller percentage of Black voters supported 19 Alexandra Manigo, a White, but still 20 cohesive. It was more cohesive when there 21 was a Black running. 22 Q. Do you understand Eric Goodwin 23 to be running on a slate endorsed by what 24 you've characterized as the public school 25 community?</p>

<p style="text-align: right;">Page 162</p> <p>1 Cole</p> <p>2 A. Yes.</p> <p>3 Q. Do you understand Alexandra</p> <p>4 Manigo to be running to have been running on</p> <p>5 the same slate Eric Goodwin?</p> <p>6 A. Yes.</p> <p>7 Q. Why do you think they received</p> <p>8 such disparate levels of support despite</p> <p>9 running on the same slate?</p> <p>10 A. First of all, both percentages</p> <p>11 indicate cohesion and indicative of</p> <p>12 polarized voting. This would just be an</p> <p>13 example where -- potentially a contest where</p> <p>14 there is no Black running, was not related</p> <p>15 to the severe kind of polarization that we</p> <p>16 saw with the seats of Grossman and</p> <p>17 Engel/Chajmovicz.</p> <p>18 Q. Is there something different</p> <p>19 about Mark Berkowitz?</p> <p>20 A. What do you mean by that?</p> <p>21 Q. Well, for example, for the seat</p> <p>22 of Engle you have 99.4 percent of Black</p> <p>23 voters supporting Chevron Dos Reis, who is a</p> <p>24 Latino woman, and 3.4 percent of Black</p> <p>25 voters supporting Joe Freilich. That is</p>	<p style="text-align: right;">Page 164</p> <p>1 Cole</p> <p>2 you generated in which you are not confident</p> <p>3 the percentage of Black voters who voted for</p> <p>4 the candidates in May 21, 2013 election?</p> <p>5 A. It sounds right.</p> <p>6 MR. LEVINE: Why don't we take a</p> <p>7 five-minute break and see if there is</p> <p>8 anything left to do.</p> <p>9 MR. GROSSMAN: Okay.</p> <p>10 MR. LEVINE: Sound good?</p> <p>11 MR. GROSSMAN: Sounds good.</p> <p>12 (Recess taken.)</p> <p>13 Q. Let's go back on the record. I</p> <p>14 only have a few more questions. Thank you</p> <p>15 very much for your patience so far.</p> <p>16 I still have a question that I'm</p> <p>17 not clear of in terms of what you're calling</p> <p>18 the "correlation analysis." If you could</p> <p>19 turn to your report, which is the document</p> <p>20 we marked as Exhibit 2, to page 8, paragraph</p> <p>21 22, the very bottom of the page, that</p> <p>22 paragraph actually extends over on to the</p> <p>23 page 9, and at the top of the page, and in</p> <p>24 the penultimate sentence of that paragraph,</p> <p>25 you list the three methods of analysis that</p>
<p style="text-align: right;">Page 163</p> <p>1 Cole</p> <p>2 also a very different vote breakdown as</p> <p>3 between Mark Berkowitz and Alexandra Manigo</p> <p>4 despite the fact that all three are slate</p> <p>5 candidates, right?</p> <p>6 A. Right.</p> <p>7 Q. So I'm just wondering if that</p> <p>8 strikes you as anomalous?</p> <p>9 A. His pattern was -- yes, it was</p> <p>10 somewhat different, let's say, than 2016 and</p> <p>11 one possibility is that not being an</p> <p>12 interracial contest may have made a</p> <p>13 difference.</p> <p>14 Q. So there is some element of</p> <p>15 support for these candidates that is not</p> <p>16 necessarily tied to the slate that they're</p> <p>17 running on, but may be related to other</p> <p>18 factors; is that about right?</p> <p>19 A. It's possible. It's possible.</p> <p>20 Q. Are you as confident in these</p> <p>21 results as you were in all of the prior</p> <p>22 ones?</p> <p>23 A. Yes.</p> <p>24 Q. And so looking back over the</p> <p>25 report, is the only set of EI estimates that</p>	<p style="text-align: right;">Page 165</p> <p>1 Cole</p> <p>2 you used, right?</p> <p>3 A. Yes.</p> <p>4 Q. In the third method of analysis</p> <p>5 you identify as Goodman single-equation</p> <p>6 ecological regression, right?</p> <p>7 A. Right.</p> <p>8 Q. Did you do a Goodman</p> <p>9 single-equation ecological regression</p> <p>10 analysis?</p> <p>11 A. What I should have said there to</p> <p>12 generate more clarity is "that correlation</p> <p>13 analysis from a Goodman single-equation</p> <p>14 analysis." The same variables were used in</p> <p>15 both.</p> <p>16 Q. I apologize. You have not</p> <p>17 generated more clarity yet, but maybe we</p> <p>18 will get there.</p> <p>19 What do you mean by that?</p> <p>20 A. I mean that in generating a</p> <p>21 correlation, we're looking at the association</p> <p>22 between two variables. In this case the</p> <p>23 racial composition of a precinct and the</p> <p>24 vote share for a candidate. Correlation</p> <p>25 looks at the association between the two.</p>

<p style="text-align: right;">Page 166</p> <p>1 Cole 2 There is no prediction involved. It is an 3 association. 4 Q. How is that different from 5 Goodman single-equation ecological 6 regression? 7 A. The formula is different. The 8 formula for correlation is the covariance 9 divided by the product that the -- the 10 standard deviations of the two variables. 11 That's one formula. 12 The regression, which also uses 13 the same two variables, but looks to predict 14 how much vote share based on race using a 15 least squares approach, but the basic 16 formula is Y equals Ax plus B. A formula, 17 an equation, Y equals Ax plus B. 18 Q. So is this list in your report, 19 where you list Goodman single-equation 20 ecological regression, is that inaccurate? 21 A. It's not inaccurate. To be 22 clearer, I should have said, "correlation 23 from." It's a correlation from the Goodman 24 approach. 25 Q. Are the problems identified in</p>	<p style="text-align: right;">Page 168</p> <p>1 Cole 2 MR. LEVINE: I have no further 3 questions. 4 MS. CONNELL: I have no 5 questions. 6 MR. GROSSMAN: I do have some 7 questions. 8 EXAMINATION BY 9 MR. GROSSMAN: 10 Q. Good afternoon, Dr. Cole. 11 A. Good afternoon. 12 Q. Counsel asked you earlier to 13 define what you meant by a Preliminary 14 Expert Report. When you issued your opinion 15 in this report, had you received any 16 discovery from the district or the 17 commissioner? 18 A. The only discovery from the 19 district is what I got from their website in 20 terms of data. 21 Q. To the best of your knowledge, 22 the defendants in this case have not yet 23 produced any documents that would have 24 allowed you to further inform your analysis? 25 A. No.</p>
<p style="text-align: right;">Page 167</p> <p>1 Cole 2 the Grofman article that we discussed of 3 using CVAP as your independent variable and 4 having multiple racial categories equally 5 applicable to the analysis that you did 6 using Goodman single-equation ecological 7 regression? 8 A. Those critiques have to do with 9 generating racial bloc voting estimates from 10 a single equation. And at that point in 11 time they were developing bivariate 12 ecological regression, BERA, B-E-R-A, which 13 in terms of the regression was an advance 14 over just using the single regression. 15 That's separate from what I did. 16 Q. Why didn't you do the Goodman 17 single-equation ecological regression that 18 projects racial polarization? 19 A. I didn't use the Goodman 20 single-equation because research has shown 21 when you compare those estimates to known 22 individual level data, let's say from 23 well-designed exit poll studies, that the EI 24 estimates are more correct than the single 25 regression estimates.</p>	<p style="text-align: right;">Page 169</p> <p>1 Cole 2 Q. Is it possible that further data 3 and information could further inform your 4 analysis? 5 A. Yes. 6 Q. You testified before about 7 receiving data from Steve White. You 8 reviewed the accuracy of the data you 9 received from Mr. White? 10 A. I did. 11 Q. Do you know if anyone else 12 reviewed the accuracy of the data received 13 from Mr. White? 14 A. Yes. 15 Q. Who else? 16 A. Bill Cooper. 17 Q. Did you find any errors in the 18 data? 19 A. No. 20 Q. You testified before that you 21 received election data in this case from 22 websites. Do you recall which website 23 contained the election data that you 24 referred to earlier? 25 A. It's the main East Ramapo</p>

<p>1 Cole</p> <p>2 Central School District data -- website.</p> <p>3 Q. You testified earlier that you</p> <p>4 were retained as an expert in February of</p> <p>5 2017. Can you clarify whether you were</p> <p>6 retained as a consulting expert or a</p> <p>7 testifying expert at that time?</p> <p>8 A. I was consulting at that time.</p> <p>9 I had not agreed or had an arrangement to</p> <p>10 testify at that point.</p> <p>11 Q. Do you recall approximately when</p> <p>12 you were retained as a testifying expert in</p> <p>13 this case?</p> <p>14 A. This is going to be a</p> <p>15 guesstimate. Maybe May or June, or</p> <p>16 something like that, of 2017.</p> <p>17 Q. How many methods of quantitative</p> <p>18 analysis are reflected in your report?</p> <p>19 A. Three.</p> <p>20 Q. Are all three of these methods</p> <p>21 peer-reviewed?</p> <p>22 A. Yes.</p> <p>23 Q. Are all of your analyses</p> <p>24 replicable?</p> <p>25 A. Yes.</p>	Page 170	<p>1 Cole</p> <p>2 A. No.</p> <p>3 Q. Do you typically report those</p> <p>4 turnout outputs?</p> <p>5 A. No.</p> <p>6 Q. Have you ever been disqualified</p> <p>7 as an expert as a result of the Daubert</p> <p>8 motion?</p> <p>9 A. No.</p> <p>10 Q. You testified that you testified</p> <p>11 as an expert in approximately 30 voting</p> <p>12 rights cases overall; is that correct?</p> <p>13 A. Sounds right -- oh, let me take</p> <p>14 that back.</p> <p>15 Q. Let me actually rephrase the</p> <p>16 question.</p> <p>17 You testified that you have been</p> <p>18 retained as an expert in approximately 30</p> <p>19 voting rights cases; is that correct?</p> <p>20 A. That's correct.</p> <p>21 Q. Thank you.</p> <p>22 You were asked about your</p> <p>23 confidence in your EI estimates. Is it your</p> <p>24 testimony that you performed those EI</p> <p>25 calculations correctly?</p>	Page 172
<p>1 Cole</p> <p>2 Q. And you retained all the data</p> <p>3 necessary to replicate all of your analyses?</p> <p>4 A. Yes.</p> <p>5 Q. Did you testify earlier that the</p> <p>6 EzI output generates standard error?</p> <p>7 A. Yes.</p> <p>8 Q. You've reported ecological</p> <p>9 inference estimates in approximately a dozen</p> <p>10 cases; is that accurate?</p> <p>11 A. That sounds about right, yes.</p> <p>12 Q. Do you always report the</p> <p>13 standard errors?</p> <p>14 A. No.</p> <p>15 Q. Do you typically report the</p> <p>16 standard errors?</p> <p>17 A. No.</p> <p>18 Q. Did you testify that the EzI</p> <p>19 program also generates estimates of turnout</p> <p>20 by race in its output?</p> <p>21 A. Yes.</p> <p>22 Q. The dozen or so cases in which</p> <p>23 you have produced reports using the</p> <p>24 ecological inference, do you always report</p> <p>25 those turnout outputs?</p>	Page 171	<p>1 Cole</p> <p>2 A. Yes.</p> <p>3 Q. Is your level of confidence in</p> <p>4 your EI estimates reflective in any way of</p> <p>5 whether you performed your EI estimates</p> <p>6 correctly?</p> <p>7 A. Yes.</p> <p>8 Q. You analyzed 12 contested</p> <p>9 elections; is that correct -- strike that.</p> <p>10 You analyzed 12 contested</p> <p>11 elections for the board; is that correct?</p> <p>12 A. That's correct.</p> <p>13 Q. In 2015 did the EI conflict with</p> <p>14 the correlation analysis in any of the</p> <p>15 contests?</p> <p>16 A. No.</p> <p>17 Q. In 2016 did EI conflict with the</p> <p>18 correlation analysis in any of the contests?</p> <p>19 A. No.</p> <p>20 Q. In 2017 did the EI conflict with</p> <p>21 the correlation analysis in any of the</p> <p>22 contests?</p> <p>23 A. No.</p> <p>24 Q. Counsel asked you before about</p> <p>25 confidence intervals. What is the relation</p>	Page 173

<p style="text-align: right;">Page 174</p> <p>1 Cole 2 between standard error and confidence 3 intervals? 4 A. You used the standard error -- 5 you can use the standard error to generate 6 confidence intervals. 7 Q. So a standard error would allow 8 you to understand -- strike that. 9 A standard error would allow 10 anyone to understand that your EI analysis 11 was conducted reliably and correctly; is 12 that an accurate statement? 13 MR. LEVINE: Objection. 14 Q. Let me rephrase. 15 Does standard error reflect on 16 the reliability of the calculation -- strike 17 that one more time. 18 Does standard error reflect on 19 the reliability of an analysis? 20 MR. LEVINE: Objection. 21 A. I'm going to ask what you mean 22 by "reliability." 23 Q. That's an excellent question. 24 What does standard error tell us 25 about or tell you about whether you've</p>	<p style="text-align: right;">Page 176</p> <p>1 Cole 2 Berkowitz and Alexandra Manigo, by what 3 margin does Ms. Manigo receive a higher 4 percentage of Black votes than 5 Mr. Berkowitz? 6 A. Approximately 32 percent. 7 Q. If a candidate won an election 8 by 32 percent, how would you characterize a 9 victory of that magnitude? 10 A. It would be of landslide 11 proportions. 12 Q. I would like you to turn your 13 attention to HPA in this table. In each of 14 these three elections how would you 15 characterize the margin of victory among 16 White voters for Mr. Berkowitz, Mr. Grossman 17 and Mr. Freilich? 18 A. Well, there are similar 19 estimates and they're indicative of very 20 high cohesion? 21 Q. According to the HPA analysis, 22 the White preferred candidate won every 23 contested election that you analyzed? 24 A. That's correct. 25 Q. You used multiple -- you</p>
<p style="text-align: right;">Page 175</p> <p>1 Cole 2 performed ecological inference analysis 3 accurately -- strike that. I'll leave that 4 alone. 5 Does your review of the standard 6 error -- strike that. Is the turnout for -- 7 strike that. 8 How does your analysis of the 9 2012 U.S. presidential election affect your 10 confidence in your analysis of racially 11 polarized voting in contests for election of 12 the East Ramapo Central School District 13 Board of Education? 14 A. I analyzed the presidential 15 contest in order to expand the number of 16 voters involved in an interracial electoral 17 contest, and the results were supportive of 18 racially polarized voting in the school -- 19 amongst school district voters. 20 Q. Turn to Table 2 on page 38 of 21 your report. Look at the election 22 between -- I am sorry, the contest between 23 Mark Berkowitz and Alexandra Manigo. What 24 is the margin of victory -- strike that. 25 In the contest between Mark</p>	<p style="text-align: right;">Page 177</p> <p>1 Cole 2 testified before that you used three 3 separate measures of racially polarized 4 voting analyses; is that correct? 5 A. That's correct. 6 Q. Where those quantitative 7 measures conflict, is supplemental evidence 8 valuable to resolve the tension? 9 MR. LEVINE: Objection. 10 A. They were helpful. 11 Q. I would like to turn your 12 attention to paragraph 64 on page 28 of your 13 report -- strike that. 14 Turn to paragraph 67 of your 15 report, page 31. 16 A. I'm with you. 17 Q. What does this data tell you 18 about the composition of the public school 19 student body and the private school student 20 body? 21 MR. LEVINE: Objection. 22 A. As I said earlier, these NYSED 23 data indicated that the population at public 24 schools is virtually almost all non-White 25 and private school population is close to</p>

<p style="text-align: right;">Page 178</p> <p>1 Cole 2 100 percent White. 3 Q. Given the racial composition of 4 the schools, do you think it's more or less 5 likely that a slate that is preferred by 6 advocates of investment in public schooling 7 would be preferred by minority voters? 8 MR. LEVINE: Objection. 9 A. I would. 10 Q. Let's try the question one more 11 time. 12 A. Yes. 13 Q. Based on your understanding of 14 the racial composition of the schools, how 15 does that affect your understanding of how 16 an organization that advocates for greater 17 investment in the public schools would 18 receive support from -- strike that. 19 Turning your attention to 20 paragraph 65, you were asked about an Op Ed 21 written by Ms. Hatton; is that correct? 22 A. Yes. 23 Q. The Op Ed received a response 24 from Yehuda Weissmandl, President of East 25 Ramapo Central School District Board of</p>	<p style="text-align: right;">Page 180</p> <p>1 Cole 2 over the past five years without any 3 specific plans? 4 A. No. 5 Q. Have you used EI analysis in 6 other reports where you've testified as an 7 expert in which there were multiple, more 8 than two racial groups in the community -- 9 strike that. 10 Did you use correlation analysis 11 in reports where there were more than two 12 racial groups in a community? 13 A. Yes. 14 Q. Those reports were not excluded 15 as the result of Daubert challenges; is that 16 correct? 17 A. Correct. 18 Q. What does the term "statistical 19 significance" mean? 20 A. You establish a level of 21 statistical significance, it allows you to 22 state that your result is not happening by 23 chance alone at a particular level. 24 Q. Are there social science 25 analyses that you're aware of that use a</p>
<p style="text-align: right;">Page 179</p> <p>1 Cole 2 Education; is that correct? 3 A. That's correct. 4 Q. Does the fact that 5 Mr. Weissmandl responded to Ms. Hatton's 6 Op Ed lend credibility to her piece? 7 MR. LEVINE: Objection. 8 Q. In your mind? 9 MR. LEVINE: Objection. 10 A. It would lead me to believe that 11 he felt the need to respond to it would 12 indicate her letter was of some importance. 13 Q. Do you recall if 14 Mr. Weissmandl's Op Ed contradicted any of 15 the points Ms. Hatton made about whether 16 Mr. Charles, Mr. Germain and 17 Mr. Corado (sic) skipped the NAACP forum? 18 A. No. 19 Q. Do you recall whether 20 Mr. Weissmandl's Op Ed contradicted 21 Ms. Hatton's point that the public school 22 community was suspicious of Charles, Germain 23 and Corado because they refused to return 24 calls to the press and made implausible 25 promises to restore almost every program cut</p>	<p style="text-align: right;">Page 181</p> <p>1 Cole 2 statistical significance level of p value of 3 .2? 4 MR. LEVINE: Objection. 5 A. Yes. 6 Q. What analysis? 7 A. In the area of Medicare/Medicaid 8 fraud audits. I should say, alleged fraud 9 audits. 10 Q. It's your understanding that 11 when those audits are conducted and yield 12 results of a p value of .2, what does that 13 indicate? 14 A. When demands are made for 15 repayment, a lower level of confidence 16 interval is used. 17 Q. So is there still some value to 18 results that report a p value of .2? 19 A. Yes. Oh, yes. 20 Q. You testified earlier that you 21 did not perform any analysis of racially 22 polarized voting on the 2014 election? 23 A. Yes. 24 Q. Did you review supplemental 25 evidence regarding the 2014 election?</p>

<p>1 Cole 2 A. I did. 3 Q. Is that evidence of racially 4 polarized voting? 5 A. I believe the take-home story 6 from that supplemental evidence was that 7 residents that typically support a public 8 school slate felt that running candidates 9 would be futile. 10 Q. Did that inform your analysis of 11 racially polarized voting? 12 A. Yes. 13 Q. Earlier you mentioned a 14 representative sample of supplemental data. 15 What did you mean by the term 16 "representative sample"? 17 A. Relied upon a sample that was 18 representative of the sites that were 19 systematically generated. 20 Q. Looking at the 2013 election, 21 Table 2, page 40, what does the HPA indicate 22 in terms of White support for the winning 23 candidates Corado, Germain and Charles? 24 A. Consistent across all three 25 candidates at very high levels of cohesion.</p>	Page 182	<p>1 Cole 2 vote respectively? 3 MR. LEVINE: Objection. 4 A. It would lead me to believe 5 there is an inconsistency there. 6 MR. GROSSMAN: I have nothing 7 further. 8 MR. LEVINE: I have a few 9 questions. 10 EXAMINATION (CONT'D) 11 BY MR. LEVINE: 12 Q. I have a few more redirect 13 questions. 14 When I asked you before if you 15 had all of the data that you required to 16 perform your ecological inference analysis, 17 you answered yes. 18 How could obtaining discovery of 19 the district influence your ecological 20 inference analysis? 21 A. I'm not so sure it influenced 22 the EI analysis. It might have some bearing 23 on the supplemental data that I collected. 24 Q. As you sit here today, can you 25 think of any evidence that you might receive</p>	Page 184
<p>1 Cole 2 Q. Corado, Germain and Charles each 3 won the White vote by a margin of 4 approximately 70 points; is that accurate? 5 A. In those homogenous precincts, 6 yes. 7 Q. The vote totals, looking at the 8 vote totals, do those elections reflect such 9 as wide margin? 10 MR. LEVINE: Objection. 11 MR. GROSSMAN: Let me rephrase. 12 Q. What is the approximate margin 13 of victory in terms of total votes for 14 candidates Corado, Germain and Charles? 15 A. Approximately 1700, 16 to 17 16 hundred votes. 17 Q. Do the HPA analysis and margin 18 of victory in terms of total votes inform 19 your confidence in whether the EI -- strike 20 that. 21 Does the HPA and the margin of 22 victory in terms of total votes affect your 23 confidence in whether MaraLuz Corado, Pierre 24 Germain and Bernard Charles actually won 25 73.9, 91.8 and 89.7 percent of the Black</p>	Page 183	<p>1 Cole 2 that would somehow change your opinions? 3 A. Not at this time. 4 Q. Take a look at your report and 5 turn to the last page Table 4a, page 45. 6 You were asked whether based upon your 7 analysis the White preferred voter -- sorry, 8 the White preferred candidate had won every 9 single election that you analyzed and you 10 answered yes, but that's not true, is it, 11 because in your analysis of the 2012 12 presidential election the Black preferred 13 candidate won and the White preferred 14 candidate lost at least for this 15 jurisdiction, right? 16 A. I was answering with respect to 17 the district contests. 18 Q. All right. 19 So the question asked you -- I 20 know because I paid very close attention. 21 The question asked you whether the White 22 preferred candidate won every election that 23 you analyzed and so the answer to that 24 question is no, right? 25 A. That's correct.</p>	Page 185

<p style="text-align: right;">Page 190</p> <p>1 Cole 2 I just didn't understand the question and so 3 I didn't understand your answer. 4 How could the EI analysis and 5 the correlation analysis conflict; don't 6 they measure different things? 7 A. I believe I answered it using a 8 different word than "conflict." 9 Q. Right. 10 Was that intentional? 11 A. Yes. 12 Q. Okay. So what is the better -- 13 what is the better way to describe that? 14 A. I'd say, not consistent, 15 something like that. 16 Q. So I had asked you earlier 17 whether it's possible for your correlation 18 analysis that you performed for the 2013 19 elections, specifically with respect to 20 Black voters, and your EI analysis with 21 respect to the Black voter in 2013 to both 22 be reliable, both estimates. Do you recall 23 that? 24 A. Not specifically. 25 Q. So you don't recall when I asked</p>	<p style="text-align: right;">Page 192</p> <p>1 Cole 2 anything to do with each other. Am I wrong? 3 A. Yes. 4 Q. What do they have to do with 5 each other? 6 A. Correlation coefficient is a 7 measure of the strength of the relationship 8 between racial composition of precincts and 9 voter outcome. And the EI produces specific 10 estimates which are another indication of 11 the magnitude of polarized voting. 12 Q. So what I'm asking is: Is it 13 possible for your correlation analysis to 14 accurately reflect the increasing degree of 15 Black voter support for a certain candidate 16 and have your EI estimate of the share of 17 Black voter support for the candidates in 18 2012 to be -- or 2013, rather, to be the 19 same? 20 A. It's possible. 21 Q. Right. 22 That means that those two 23 analyses are not necessarily inconsistent, 24 right? 25 A. Not necessarily.</p>
<p style="text-align: right;">Page 191</p> <p>1 Cole 2 you that question? 3 A. As I said, I don't recall that 4 specific question. 5 Q. All right. Well, we can go over 6 it again. 7 Is it possible that both your 8 correlation analysis for the Black voters in 9 2013 and your EI estimate for the Black 10 voters in 2013 to both be reliable? 11 A. If I didn't before, I'll ask it 12 now, what do you mean by "reliable"?</p> <p>13 Q. Meaning -- well, is it possible 14 that your correlation analysis can generate 15 a reliable indicator; for example, of 16 increasing minority support for particular 17 candidates in different polling places and 18 have your EI analysis still be as reliable 19 as it otherwise would be?</p> <p>20 A. Once again, what do you mean by 21 "reliable"?</p> <p>22 Q. Here is the thing, I don't 23 understand why you say that your correlation 24 analysis necessarily is inconsistent with 25 your EI estimate. I don't think they have</p>	<p style="text-align: right;">Page 193</p> <p>1 Cole 2 Q. Right. 3 Is there any reason to think 4 that they are inconsistent? 5 A. Yes. As I said in my report, 6 the correlational analysis is more 7 consistent with facts on the ground than the 8 EI estimates. 9 Q. If I also recall correctly your 10 correlation analysis for the 2013 election 11 for the Black voters, you did not generate 12 an estimate that was statistically 13 significant, right? 14 A. That's correct, but the effect 15 size of those correlations was of the 16 magnitude that one can rely upon them. 17 Q. Right. 18 So the not statistically 19 significant correlation analysis that is not 20 necessarily inconsistent with the EI 21 estimate that you generated is outweighed by 22 facts on the ground; is that your testimony? 23 A. I'm saying that the correlation 24 coefficient is consistent with facts on the 25 ground, and those -- and homogenous precinct</p>

<p style="text-align: right;">Page 194</p> <p>1 Cole 2 analysis, and those -- 3 Q. Hold on a second. You didn't do 4 a homogenous precinct analysis for Black 5 voters in 2013? 6 A. That's true. For the White 7 cohesion, for the White analysis, the 8 correlation coefficient was consistent with 9 homogenous precinct analysis and EI and the 10 supplemental evidence. 11 Q. Right. 12 Isn't the White voter EI that 13 you estimate, isn't that generated 14 independently of your Black voter EI? 15 A. Yes. 16 Q. So your correlation analysis is 17 not necessarily inconsistent with your EI 18 estimate for Black voters in 2013; is that a 19 fair sum up? 20 A. Could repeat that? 21 Q. Your correlation analysis for 22 Black voters in 2013 is not necessarily 23 inconsistent with your EI estimate for Black 24 voters in 2013; is that a fair sum up? 25 A. No. I would say that -- did you</p>	<p style="text-align: right;">Page 196</p> <p>1 Cole 2 coefficient can inform the analyst about 3 racially polarized voting. 4 Q. Do the results of the 5 correlation coefficient ever tell you the 6 percentage by race of support for a 7 candidate? 8 A. That's not what it is meant to 9 do. 10 Q. Right. 11 So the results of a correlation 12 analysis are always going to be different 13 than an ecological inference analysis, 14 right? 15 A. They measure different aspects 16 of racially polarized voting. The 17 correlation coefficient, as I said before, 18 measures the strength of the association 19 between racial composition of the precincts 20 and voter outcome; whereas, EI is a 21 different reflection, different kinds of 22 estimates, but does inform you about 23 racially polarized voting. 24 Q. Is there some particular output 25 from your correlation analysis that you</p>
<p style="text-align: right;">Page 195</p> <p>1 Cole 2 say not necessarily consistent? 3 Q. I said, "not necessarily 4 inconsistent." 5 A. I'd say it's not -- I would 6 prefer to say that the different results 7 from the correlation analysis and the EI 8 analysis for Black voters in 2013 without 9 supplemental evidence would lead me -- it 10 would be inconclusive. 11 MR. LEVINE: Could you read that 12 answer back? 13 (Record read.) 14 Q. I hate to keep going after that 15 one subject, but I remain confused because 16 what do you mean when you say "different 17 results from the correlation analysis and 18 the EI estimate," they don't generate the 19 same results ever, they measure different 20 things, right? 21 A. They measure different aspects 22 of racially polarized voting. 23 Q. What do you mean by "different 24 results"? 25 A. The results from the correlation</p>	<p style="text-align: right;">Page 197</p> <p>1 Cole 2 would want to see to confirm a particular 3 result in your ecological inference 4 analysis? 5 MR. GROSSMAN: Objection. 6 A. A correlation coefficient is a 7 correlation coefficient. That's the result. 8 Q. Since I believe this is a 9 paraphrase of your own testimony, let's try 10 it one more time to sum up. 11 The results of your correlation 12 analysis for the 2013 election with respect 13 to Black voters is not necessarily 14 inconsistent with your estimate of the 15 support of Black voters for candidates in 16 the 2013 election? 17 MR. GROSSMAN: Objection. 18 A. You asked me that question 19 before and I answered it differently with a 20 different set of words. 21 Q. Which is why I asked it again. 22 Would you like me to ask it one more time to 23 see if I can get you to reanswer it one more 24 time? 25 A. Can you rephrase it?</p>

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1 NAACP v. ERCSD
2 Steven Parker Cole , Ph.D.
3 ACKNOWLEDGMENT OF DEONENT
4 I, _____, do
5 hereby certify that I have read the foregoing
6 pages and that the same is a correct
7 transcription of the answers given by
8 me to the questions therein propounded,
9 except for the corrections or changes in form
10 or substance, if any, noted in the attached
11 Errata Sheet.
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13 _____

14 DATE SIGNATURE

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